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ABSTRACT

This publication contains six booklets useful to classroom teachers in helping students acquire test-taking skills. These materials are designed to familiarize students with the mechanics involved in taking tests, and teachers with skills which relate to the wider year-long scope of the curriculum. This should minimize format-related problems, improve student attitudes and skills for taking tests, and insure an accurate assessment of student achievement. (Author)

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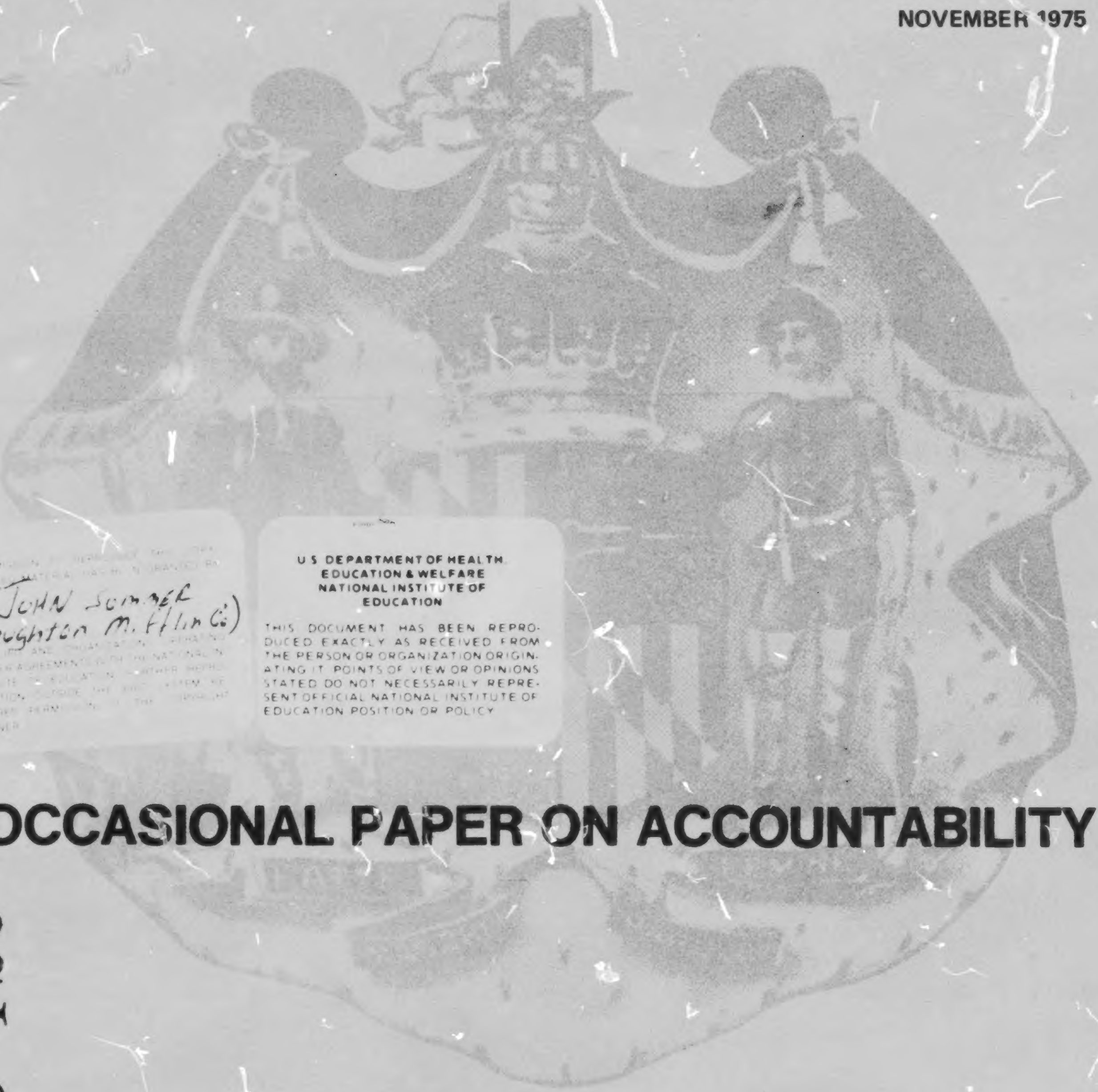
IMPROVING STUDENT ATTITUDES AND SKILLS FOR TAKING TESTS

NOVEMBER 1975



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OCCASIONAL PAPER ON ACCOUNTABILITY

TM005 129

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FOREWORD

In December 1974, in response to the recommendations of the Citizens Advisory Committee on Minority Relations, Montgomery County Public Schools (MCPS) produced the document, Action Steps on Minority Relations, which described a series of current situations and recommended actions. Among the situations discussed was the need for improving student skills in test taking. Therefore, instruction in test taking was to be incorporated as a specific curricular skill.

In implementing this action, the MCPS Department of Pupil and Program Appraisal, Field Services Division, designed and developed six booklets useful to classroom teachers in helping students acquire test-taking skills. The materials were subsequently presented to the Maryland State Department of Education (MSDE) for review. The MSDE Division of Research, Evaluation, and Information Systems requested that MCPS consider the publication of these locally developed materials as a MSDE Occasional Paper for dissemination to other Maryland school systems.

These materials are designed to familiarize a) students with the mechanics involved in taking tests and b) teachers with skills which relate to the wider, year-long scope of the curriculum. This should minimize format-related problems, improve student attitudes and skills for taking tests, and insure an accurate assessment of student achievement.

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SECTION I

TEST-TAKING SKILLS RELATED TO THE IOWA TESTS OF BASIC SKILLS (ITBS)

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TEST-TAKING SKILLS RELATED TO THE IOWA TESTS OF BASIC SKILLS (ITBS)

SECTION I

PART I: PURPOSE AND CONTENT

There are many factors in addition to knowledge which influence test performance. State of physical health, motivation, emotional level, and test-taking skills play a part in the outcome of the test. Research tells us that a pupil who a) understands the directions, b) can handle the mechanics of recording answers, c) is not overly anxious, and d) is motivated for the task will receive higher scores than other pupils with the same knowledge but without these characteristics. Some research also indicates that the proper test-taking atmosphere contributes to student performance.

Suggestions are made for activities, to be used before and during the testing sessions, which should promote optimal student performance. The primary focus here is on those skills needed to perform well on objective standardized tests; however, these skills should also be useful for other tests.

Part I of this guide explains the purpose and content. Part II presents some information which should be helpful in preparing yourself and your students for the test-taking sessions. Part III addresses things you can encourage your pupils to do to maximize their performance. Part IV focuses on specific things teachers can do in simulating testing conditions to help students be more relaxed and comfortable with the mechanics of the testing situations. Part V contains an annotated bibliography on test-taking skills.

Not included in this guide, but available separately from the field services division of the Department of Pupil and Program Appraisal, are booklets which focus on the specific cognitive skills used in taking the Iowa Tests of Basic Skills. These booklets are available for Grades 3, 5, 7, and 9. Each of the four booklets contains examples of the format of each subtest, along with the grade level skills classifications. The grade level skills classifications include useful suggestions about questions you can ask your students that will help them gain the skills needed for the ITBS (for example; analyzing, inferring, determining underlying relationships, etc.).

PART II: WHAT TEACHERS CAN DO BEFORE AND DURING TESTING SESSIONS

A. Prepare Yourself and the Setting for Test Administration.

1. Familiarize yourself with the directions.
   When administering the ITBS, follow the MCPS Test Manual and the Maryland Handbook on the Accountability Assessment Program. Careful study of the test manual well in advance of testing will enable you to give the directions in a natural and helpful way. The test manual not only specifies the exact directions you are to use; it also tells you the specific comments you should not give.

2. Know the characteristics of your students.
   A person's characteristics change as he/she develops, and this change can influence test-taking performance. For example, the following might be characteristic of students in the third grade:

   - May be afraid of test situation
   - May have difficulty handling test booklet and answer sheets
   - May have difficulty budgeting time
   - May be overly concerned with unimportant details
   - May find it difficult to skip questions and return later
   - May erase completely through paper or break several pencil points
   - May become ill during the test session due to anxiety

   Similar characteristics may occur at other grade levels. Be alert to the individual traits of your students.

3. Create a supporting environment.
   Keep the test setting as comfortable as possible. If possible, begin the test only after you are satisfied with physical conditions such as amount of light, temperature, noise level, and space between seats. Be sure to make the necessary provisions for left-handed students. By being prepared with extra pencils, scrap paper, erasers, and other supplies to help pupils avoid wasted time and anxiety, you will help your students have a more relaxed approach to test-taking.

4. Avoid interruptions.
   Once the test has begun, avoid distractions that break pupils' concentration and keep them from doing their best. Try to prevent sudden movements and noises in the room. DO NOT INTERRUPT STUDENTS AT WORK TO ANNOUNCE REMAINING TIME.

B. Prepare Your Students for Taking the Tests.

1. Tell your students why they are taking the tests, how the results will be used, and how the tests are scored.
   Students must be stimulated to do their best if the values of testing are to be realized. The tests indicate how a student compares with others in the same grade and how much the student has improved. Test results help students and their teachers find out what students know. The results also help teachers find out what students don't know. This helps teachers to plan for individual and group instruction.

   Explanations of the scoring of tests should help reduce anxiety arising from the fear of the unknown. If students ask whether there is a penalty for guessing, indicate that the number of right answers is their score. However, the test manual cautions teachers not to actively encourage guessing.

2. Train your students how to take tests.
   Training should focus on: a) how to be prepared physically and mentally; b) how to use time wisely; c) how to read directions and questions, d) how to record answers; and e) how to follow general procedures during testing sessions. Teachers should provide students with information and practice on these items.

3. Train your students in the specific thinking skills required on the tests.
   Test questions often require students to do things in ways different from their previous experience. Part IV of this guide contains formats and grade level classifications for the ITBS, including suggested questions teachers can use to help students practice skills used on the tests.

4. Inform your students of the teacher's role during the testing sessions.
   Teachers should explain that they cannot help their students during the testing sessions in the way they normally would if testing were not taking place. Once the sessions have begun, teachers cannot assist students either with the answers or in arriving at the answers.

   During the testing sessions, teachers should be checking to be sure that students are

   a) Working in the correct section of the test booklet
   b) Marking in the correct section of the answer sheet
   c) Making the black marks correctly
   d) Working until they reach the end of a test section for their grade level

PART III: THINGS YOU CAN ENCOURAGE PUPILS TO DO TO MAXIMIZE THEIR PERFORMANCE

A. Be Ready Physically, Mentally, and Emotionally.

1. Students who are tired, need eye glasses, or are ill cannot do their best on tests.
   Encourage a good night's sleep before the test. Those who wear glasses should be reminded to bring them. A student who becomes ill during a testing session should be excused; testing of the student must be completed at a later time.

2. Students should try to stay calm, think positively, and not give up.
   A little concern and nervousness over taking a test are not unusual. Some people may get a little nervous whenever something different or important is about to happen. Try to get students to think of the test as a chance to show how much has been learned or what they can do.

   Share these ideas with students: a) Some tests are easy and some are difficult; b) some start easy and become difficult; c) some are short, and some are long. Help students to understand that it is a rare thing for anyone to answer everything right. Remind students that finding out what they cannot do is an important feature of the test; so they shouldn't worry about questions they cannot answer, nor should they expect to know all the answers.

3. During training and before the test begins, students should ask questions until they are sure about what to do.
The MCPS test manual directs you to encourage questions about the instructions given before each test section. Test results will not be reliable if pupils do not understand what they are supposed to be doing.

B. Use Time Wisely.

1. Students should try to work steadily and quickly.
Some parts of tests may be too long for many students to finish in the time allowed; still, the more questions answered correctly, the higher the score will be.

2. Students should understand that reading to answer specific questions is a different task from reading for content mastery.
Although directions may tell pupils to read a passage thoroughly before answering questions, time may be used more wisely if the passage is only skimmed at first. Then, after reading the questions, the passage can be searched more efficiently for the answers. Some feel that reading the questions before looking at the passage is the most efficient approach. However, individual styles vary; and students should use an approach with which they feel comfortable.

3. Students should first answer the questions they are sure about.
Tell students not to spend time puzzling over questions they don't understand. They should first answer all questions they are sure about. The numbers of the skipped questions can be jotted down on scrap paper to return to or some other suitable means can be used. BE SURE ANSWERS ARE PUT IN THE SPACE CORRESPONDING TO THE QUESTION NUMBER ON THE ANSWER SHEET.

4. Students should check answers if there is time.
It is all right to change answers if the pupil feels he/she should. However, if an answer is changed, the original answer must be erased thoroughly.

5. Students should not sharpen pencils during a test.
Sharpening pencils can be very distracting to others; therefore, students should be told how to request another pencil if their pencil points break. Provide student with some plan, such as your handing them a sharpened pencil when they hold up one with a broken point.

6. Students should know how much time is allowed.
Starting and stopping times must not be written on the board. It is helpful if a clock is in the view of all test-takers. It can be disruptive to students' concentration to write the time on the board. The state manual specifically indicates that this is not to occur.

C. Listen to Instructions and Read Directions and Questions Carefully.

1. Students must listen to oral instructions carefully.
Many important directions for taking standardized tests are read aloud before the tests begin. Help students gain listening skills by having them listen to and repeat various types of directions during classroom instruction.

2. Students must read written directions carefully and fully before answering questions.
   Remind students that it is sometimes necessary to reread the written directions as test items are being answered during a testing session.

3. Students should be given a review of the vocabulary of test directions.
   Teach pupils that "biggest" can mean "most" and that a pencil can be called a "marker." Practice the concepts of right/left, up/down, opposite, most like, same, and different.

D. Choose and Record Responses.

1. Students should decide whether all answer options must be read before selecting the correct one.
   If the item has required students to predetermine an answer, they may prefer to locate the correct answer among the choices given. Sometimes, though, the students will need to look at all options before making a choice.

2. Students must understand the proper way to mark answers.
   Students should be instructed in the mechanics of marking on the answer sheet. Train them in using the appropriate pencil, in marking within the space, and in making the heavy mark per answer. Practice with the format of the specific test to be given. Trial tests are available for elementary students. IT IS VERY IMPORTANT TO AVOID RANDOM MARKS ON THE ANSWER SHEET. Explain to older students why random marks should not be put on the answer sheet.

3. Students should practice the procedure for answering questions.
   Show students that keeping the answer sheet on the side of the test booklet near the hand they write with allows them to mark the answer sheet without reaching across the booklet. Practice, in order, the steps of a) selecting the correct answer choice; b) identifying the exact number of the question and the number or letter of the answer; c) locating the corresponding space on the answer sheet; and d) filling in the space on the answer sheet.

PART IV: HOW TEACHERS CAN PREPARE TEST-TAKING SIMULATIONS AND PROVIDE SKILL DEVELOPMENT PRACTICE FOR STUDENTS*

A. Simulate Test-Taking Conditions.

1. Conduct simulations of test-taking conditions with students well in advance of the testing period. Students will then be familiar, and therefore more relaxed, with the mechanics involved.

2. Use the same kind of seating arrangement that is to be used for actual testing.

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*Information in this section is adapted from notes taken by Mrs. Catherine L. Derby at a workshop conducted by Dr. Masha Rudman (University of Massachusetts professor) on test-taking skills.

3. Conduct the simulations regularly. for about 10-15 minutes daily.

4. Have the students use a ditto copy, or some facsimile, of the answer sheet to be used in taking the tests.

5. Be thoroughly familiar with the manual directions so that you can use them repeatedly in the simulations.

6. Deal with one major aspect only of the testing situation and mechanics during each simulation session.

7. Replicate test-taking language in each simulation session.

B. Establish a Plan for Simulating Test-Taking Conditions.

1. First Session:

   a) Seat students in same arrangement as that for test-taking and for all future simulations.

   b) Help students become familiar with test language, especially directions.

   c) Have students use the answer sheet -- no questions, just filling in circles as you call out answers, such as 1B, 2A, 3D, etc.

   d) Emphasize working rapidly.

   e) Be sure students have two fairly dull #2 or softer pencils.

   f) Emphasize making one heavy dot in the center of the answer circle.

   g) Follow same requirements as those used in testing -- nothing but answer sheet, booklet, and pencils on desk; scrap paper, if allowed; desks separated.

2. Second Session:

   a) Simulate test language and have students use answer sheet. For example, tell students:

      If today is cloudy, mark 1A on your answer sheet.
      If today is sunny, mark 2C on your answer sheet.
      If today is freezing, mark 3D on your answer sheet.
      If today is hot, mark 4B on your answer sheet.
      If today is none of these, mark 2B on your answer sheet.

   b) Be sure to use the same language and directions as those used in the ITBS.

3. Third Session:

   a) Use an actual set of questions (similar to the ITBS format).

   b) Have students practice using this set of items with the answer sheet. Be sure they practice folding the sheets in the set of questions so that only the sheet they're working with is seen on the desk.

   c) Have students practice looking at the printed questions (on separate sheet) and moving to the answer sheet.

   NOTE: For those students who seem to be having difficulty with this kind of eye-hand coordination, help them find their own way to work (using the hand as a marker, using the pencil as a marker, etc.). Do this separately in a small group; get these students to recognize their responsibility for finding their own most comfortable way to work.

4. Subsequent Sessions:

   a) Repeat the items above.

   b) Use selections from social studies and/or science texts to give students practice in skimming, finding key words, locating main ideas, etc.

   c) Tell the students not to guess the first time around, but rather to skip the item they're not sure of (identifying it with some sort of mark) and to come back to it later.

   d) Always emphasize working quickly.

   e) Discourage stopping to think. Getting interested in the content slows the student down and many times can cause the student to become more confused about the answer.

   f) Remind students, when a reading selection is involved, to read the questions about the selection first and then read the selection itself.

   g) Encourage students to skip items that are difficult for them individually, not to spend time with them, but to go back to them if time permits.

C. Provide Practice on Skill Development Throughout the Year.

   1. Skimming is a "lifetime skill" which is a multidisciplinary one. Use as many classroom opportunities as possible to provide practice in skimming. Teach different techniques for focusing on important words, such as underlining, using key words, or reading along with the teacher and spotting only the important words in a paragraph or selection. Show students that many times the main idea of a selection or paragraph is probably found in the first or last sentence.

2. Estimating is a most useful skill to have in mathematics. Give students work frequently which requires them to estimate answers. If this is difficult for them to do, teach them the needed processes or techniques.

3. Spelling can be a constant source of trouble for many students. Encourage students, in doing their daily work, to circle the words about whose spelling they are unsure. Then teach these students how to locate the correct spellings for those words. Practice of this type helps students develop not only proof-reading skills but also various dictionary skills, such as use of key words. Language skills other than spelling also need to be practiced regularly during the year.

4. Reading graphs, charts, or tables; alphabetizing; using tables of contents, indexes, calendars, maps, magazines -- these are also skills that are useful throughout one's lifetime and are multidisciplinary in nature. Plan lessons that provide students with a great deal of practice in the use of these skills as the students progress through the year in their regular work.

PART V: ANNOTATED BIBLIOGRAPHY ON TEST-TAKING SKILLS

A. Articles and Documents.

Cliff, Robert B., and Smith, Charles W. "Humanizing the Testing Aspect of Evaluation," 27 pp., U. S. Department of Health, Education and Welfare, Office of Education (no date). ED 076 498

This paper presents guidelines for teachers for effective preparation and presentation of teacher-made tests. It outlines some tools useful in test preparation, such as teacher file cards of items covered in class, and clearly defined course objectives. Also covered are some principles to be considered in test preparation, such as, for a test to be valid, questions must be in line with what was actually taught. It suggests pre-tests as a means of evaluating instruction and preparing students for testing.

Erickson, Michael E. "Test Sophistication: An Important Consideration," Journal of Reading, Vol. 16, No. 2 (November 1972), 140-144. EJ 070 710

This article gives instructions on how to improve student test-taking skills, suggesting that students may fare poorly on standardized tests because of an acute deficiency in test-taking ability. The author identifies the skills peculiar to each type of item found on standardized reading tests, suggesting students be trained to readily identify the general skills being used by each type of item. He outlines four basic item types which the student must be able to identify: central thought, detail, context, and inference; and he tells how to answer each type.

Ford, Valeria A. "Everything You Wanted to Know About Test-Wiseness, 30 pp., U. S. Department of Health, Education and Welfare, National Institute of Education, August 1973. ED 093 912

The purpose of this paper is to define and elaborate on the term test-wiseness. It includes motivational aspects in addition to actual techniques that a test-wise examinee should employ to improve test performance, such as following directions, making efficient use of time, developing strategies for analogy and multiple-choice questions, and guessing. Activities for very young children are based on the specific abilities which are needed by pre-school and primary grade children in taking various standardized readiness tests (e.g., Metropolitan Readiness Test). These activities include teaching the concepts most like, same, different; working on columns and rows; becoming familiar with format and language used in standardized tests. Empirical research supporting the suggested techniques is elaborated in detail. A rationale for the use of a test-wiseness learning program to be used in the school is presented; and several possible procedures as to how such a program could be implemented are suggested.

Goolsby, Thomas M., Jr., and Wray, Grace A. "Practice Test for Pre-Primary and Beginning First Grade," 8 pp., Office of Education, Department of Health, Education, and Welfare, Washington, D. C. Cooperative Research Program, March 1969. ED 054 219

This is a pictorial practice test which prepares pre-primary and beginning first grade children who have not had experience with a group test to do tasks similar to those they will find on a test. The instructions for the practice test stress important cues and directions helpful during test administration, and include the entire dialog for the test procedure.

Hallberg, Albert. "Facing the Test: English," Dade County Public Schools, Miami, Florida. 1971, 21 pp. ED 064 720

This Quinmester Course is designed to help students apply the principles of effective study in a variety of testing situations. Emphasis is on developing such skills as planning wise use of allotted time, adapting reading rate to various types of test items, identifying types of analogous relationships and word attack skills, including recognition of Greek and Latin roots and affixes. A resource listing of six pages is included.

Manpower Administration, Department of Labor. "Doing Your Best on Tests," 14 pp. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 1971. ED 060 593

A guide to taking aptitude tests, this booklet briefly discusses, with drawings, the following: Why Take an Aptitude Test; How Should You Study for Aptitude Tests; Your Physical Condition Is Important; How You Feel About Taking Tests Makes a Difference; The Ones Who Give the Tests Are There to Help You; Some Rules to Know. A test to show how much the reader has learned about taking aptitude tests is provided along with the correct answers. The booklet concludes with some brief hints for test-takers.

Millman, Jason; Bishop, Carol H.; and Ebel, Robert. "An Analysis of Test-Wiseness," Educational and Psychological Measurement, Vol. 25, No. 3, 1965. 707-726

This article offers an analysis of test-wiseness as a source of variance in test scores. It defines test-wiseness as a subject's capacity to utilize the characteristics and formats of the test and/or test-taking situation to receive a high score, independent of the examinee's knowledge of the subject matter being tested. The article is not concerned with the general mental attitude and motivational state of the examinee, but rather is restricted to the actual taking of (not preparing for) objective achievement and aptitude tests. It stresses strategies of time use, error avoidance, guessing, and the use of cues as techniques in effective test-taking.

B. Books.

Honig, Fred. *Taking Tests and Scoring High*. Original Title: *How to Study for Tests and Pass Them*. New York: Arco Publishing Co., Inc., 1967.

Subtitled *How to Study For Tests and Pass Them*, this book emphasizes the development of successful study habits. Part 1 contains chapters on the following topics: What It Takes To Study Successfully, Analyze The Test, Where To Study, When To Study, How To Study. In addition, there are chapters in Parts 2 and 3 on the two basic forms of test questions (objective and subjective), the basic types of each found on most tests, and subject areas of test questions (verbal; numerical; spatial; mechanical skills; observing and remembering; problem solving; judgment and reasoning; and following directions). The final section, Part 4, includes chapters on review of one's test preparation, strategy of the test-taker during the examination, and preparation for an oral test and/or interview.

Hook, Julius N. *Testmanship: Seven Ways to Raise Your Examination Grades*. New York: Barnes and Noble, Inc., 1967.

The author defines "testmanship" as the advantageous display of one's ability and knowledge in a test situation. Defining the basic rules for success, it includes knowing different kinds of tests, how tests are graded, preparation, and thinking skills necessary for different question types. The book includes a chapter on tests of reading ability.

Millman, Jason, and Pauk, Walter. *How To Take Tests.* New York: McGraw-Hill Book Co., 1969.

This book concentrates on the principles of skillful test taking of both standardized and teacher-made tests. The author points out that "...the best way to prepare for an examination is to master subject matter through study and periodic review.... There is no quick and easy way to score high without serious study.... However, the student who wants his test marks to reflect his diligence and preparation should find this book especially rewarding." The book focuses on achievement and aptitude tests, presenting and analyzing useful principles of test-taking including: using time wisely, reading directions and questions carefully, checking answers for errors. Sections are included on special types of test questions (for example, essay and true-false) and tests of selected abilities (for example, vocabulary tests).

NOTE: The book cited below is currently listed as being out of print but its excellence is such that it is recommended here if available.

Huff, Darrell. *Score: The Strategy of Taking Tests*. New York: Appleton-Century-Crofts, Inc., 1961. (o.p.)

Based on the principle that lack of skill or sophistication in the art of taking tests is a handicap, this book is aimed at developing such skill in the reader. It attempts to develop confidence; examines different kinds of tests; and provides systems, methods, devices, techniques and special tips for attacking efficiently and briskly any test the reader may meet. It details the specific tests that will be encountered in a variety of fields and includes representative test items for practice.

SECTION II

TEST-TAKING SKILLS RELATED TO TESTS IN GENERAL

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TEST-TAKING SKILLS RELATED TO TESTS IN GENERAL

SECTION II

PART I: GENERAL STRATEGIES FOR MULTIPLE CHOICE, TRUE-FALSE, MATCHING, AND COMPLETION ITEMS

I. Multiple Choice Items: uses and limitations

Multiple choice tests deal not only with facts, dates, places, names, and the connections among them but also with supporting passages and supplementary data which can require students to "think." Questions are limited to those for which the test constructor can find logical "wrong" answers attractive enough to tempt the less knowledgeable student to choose them. Multiple choice items are typically the following types:

Accepted connections between facts

Who wrote Tom Jones?
a) George Eliot
b) William Shakespeare
* c) Henry Fielding
d) Jane Austin

Events which occur under known conditions

What happens when acetic acid is mixed with bicarbonate of soda?
a) The soda precipitates.
b) The mixture changes color.
c) The soda remains in suspension.
* d) The mixing releases carbon dioxide gas.

Events which are easily confused

Who was the first signer of the Declaration of Independence?
a) Thomas Jefferson
* b) John Hancock
c) Samuel Adams
d) Elbridge Gerry

Events which occur(ed) in a known or predictable order

(1923) a) Germany withdraws from League of Nations.
(1923) b) Munich Beer Hall Putsch
(1938) c) Austrian-German Union ("Anschluss") declared
(1934) d) Hindenburg dies.

Events which have known cause-effect relationships

Yellowing of leaves in fruits and vegetables is sometimes due to the lack of what substance in the soil?
* a) iron
b) sodium
c) lime
d) nitrite

Sets of skills, facts, or conventions for which missing elements may be filled in or errors corrected

(Cross out and correct any errors in the following sentence:)
"Who do you think brought fewer than twelve cans?"

While the above list is not exhaustive, it does point out the limitations, and sometimes the artificiality, of so-called objective items. Some of these items may be quite difficult, calling for higher level skills such as integration of information or making judgments. Consider the following item:

Read the poem:

Silent he rose, speechless, mouth agape,
Reaching, clutching arms outstretched.
Rooted our feet, breathless our body,
Rigid in posture
Powerless to escape.
Gasping for breath, willing out soul
To flee recognition.

The inevitable paradox faces us finally:
To awaken to cowardice,
Frightened of truth
Or sleep, prey to devils
Beyond subjugation.

The word "subjugation" instead of the word "imprisonment" was used by the poet because the word "subjugation"

a) is in keeping with the iambic meter of the preceding line
b) connotes physical restraint, a condition desired by the writer
c) provides metric contrast to the first line of the poem
* d) is in keeping with the use of personification in the poem

In the above items, both lower level skills such as defining the word "iambic" as well as higher level skills such as analyzing the meter of a poem and making comparisons are used simultaneously to obtain the correct answer. On the whole, however, use of higher level skills in a poorly constructed multiple choice test leads to arguments as to whether the "best answer" is the most correct one.

This problem is most acute in subject matter areas such as literature or social studies which call for subjective evaluation. It causes somewhat less difficulty in other areas such as translation of foreign languages, and causes least difficulty in mathematics and science, in which there are methods to demonstrate truth, at least at the lower levels of the subject. Poorly constructed multiple choice tests can be confusing, misleading, and unsatisfactory to both students and teachers. However, a well-constructed test is an excellent device for revealing both teaching and learning weaknesses as well as student ability to analyze and evaluate.

II. Pacing and Guessing Strategies

Because of the many built-in limitations of multiple choice tests, it is necessary for the student to develop a general strategy for taking these tests. Most students operate with definite strategies. Some of these strategies are excellent when applied properly; but most students use a single strategy (for example, work straight through and skip those you don't know) at all times, regardless of the type of test or the conditions under which it is given.

A. Pacing Strategies: Planning Use of Time

In many instances, rate of progress through a test is not a significant factor. These situations, usually involving teacher-made tests administered without timing restrictions, are designed to find out how much the student knows about a subject under relatively relaxed conditions. Students are encouraged to take their time and show what they can do. In these instances, students are encouraged to try every question in some orderly manner. Teachers can use these kinds of tests to identify skill levels of the students as they progress through units of work.

In other instances, students are to be compared not only on subject matter mastery, but on rate of production of answers. Whenever rate is to be considered, test-takers should know the number of items on the test, the total time available for these items, and whether points are to be deducted for incorrect answers.

1. The Timed Test. For most publisher-made and many teacher-made tests, timing is a significant factor. The student, for maximum efficiency, must work at a pace sufficiently fast to assure at least a try at all the items. In certain cases, the number of minutes allowed for publisher-made tests is not included in the oral instructions to the student. However, if at all possible, the student should be told how many minutes will be allowed.

2. The "Too Difficult" Test. If a brief glance at the test shows it to be set at a level beyond the abilities of the student and he must take the test anyway, he should be encouraged to go systematically through the test to complete all items he feels he can do. If the total raw score is the number of items correct (no penalty for guessing), then he should be reminded of that fact.

3. The "Seemingly Easy" Test. Occasionally, especially in the middle grades (5th through 8th), tests are viewed by students as "easy"; yet the students do not get unusually high scores. This may be because they have proceeded too cautiously through a strictly timed test. While this degree of precision is appropriate for items in which every bit of information counts (as in tests of computational skills), it may be quite inappropriate when the information needed to answer the items is buried in a wordy prose selection.

   For instance, reading comprehension tests often offer opportunities for short-cutting, such as answering non-fiction questions without reading the selection and scanning for key words sufficient to answer items. The

Gates-MacGinitie test, reviewed in another booklet, is an excellent example. Students who do well on the vocabulary and comprehension sections (generously timed) may not do as well in the speed and accuracy section because of the strict timing. For this section, students should be encouraged to treat the items as tests of rapid word-association, by searching for key words in the stem of the item, then matching them to the answer choices.

4. The Test That Increases in Difficulty. Tests that are designed to "stop" students at their respective levels of incompetence often progress from very easy to very difficult over a relatively few items. This scheme is generally followed in survey tests in which the aim is to establish the grade level or percentile rank of each student. As the student's score is almost always based on the number of items correct, all students should begin at "Start" and work as far into the test as they can in the time available. When the test level usually administered to the age or grade is clearly inappropriate for certain students, out-of-level testing will obviously supply more information about a student's true level of functioning.

B. Guessing Strategy

On teacher-made tests or any tests designed strictly to find out what the student knows, it is probably more helpful to both student and teacher if forced guessing is avoided. This prevents the build up of incorrect connections between facts, events, etc., that might occur if a student persuaded himself of the truth of a false statement simply to be able to mark each item. This is especially true if the test covers topics studied in the class. It would seem preferable to place a question mark beside those items causing difficulty.

Standardized tests may well call for a different strategy. Here the student is to be compared with others taking the test as members of a norming sample, some members of which are undoubtedly good test strategists. If the student's raw score total is to be based on the number correct, with no subtraction for skipped or incorrect answers, he/she has nothing to lose by guessing. Students should become aware of the differences between criterion-referenced tests, for which the teacher may wish to discourage guessing, and standardized tests, for which guessing may be desirable. Failure to guess on standardized tests can affect a student's score adversely as they relate to other students' scores. In addition, students who skip items may lose their places on the answer sheet.

The single greatest advantage to the student in multiple choice testing is the probability that items and answer options contain clues and reminders that jog his memory into action. Students should have practice in scanning such material to aid in recalling information temporarily forgotten in the confusion and anxiety of test taking.

III. Five Factors Important in Multiple Choice Test Performance

- Quality of items used in test
- Student's ability to follow general directions accurately
- Student's ability to read each item with precision
- Student's ability to eliminate wrong answers systematically
- Student's ability to apply special strategies to the various types of objective test items

A. Quality of Items Used in Test

In general, standardized tests used on large populations of students are fairly well constructed. In the case of teacher-made tests, it might be a good idea to eliminate test items which clearly do not "work" for whatever reason. Also, it is useful to note those items which are missed by a large portion of the students. If the teacher feels the item is nonetheless a good one, teaching strategies related to it may need to be reexamined.

B. Student's Ability to Follow Directions Accurately

Regardless of grade taught, teachers know that there are always a few students who will misunderstand the directions or inadvertently fail to follow them. The teacher does not always know that the student will be unable to follow a particular set of directions, and the difficulty may not be detected until the tests are corrected. The single most common error, especially in the secondary schools, is for students to slip back into old habits formed in classroom practice. Students will circle or put single lines through answer spaces for machine-scored tests. Others switch from special pencils to ball point pens. Still others "get one place off," and lose credit for entire sections.

Complexity of directions simply increases the risk of error, while knowledge of subject matter becomes less important to adequate performance whenever "test-wiseness" or other factors become important. Whatever the test to be given requires of the student, administration of a practice test of some length should help students overcome inappropriate habits. Careful monitoring with immediate intervention in cases of trouble should help students to avoid failing to follow directions.

C. Student's Ability to Read Each Item with Precision

Failure to read each item accurately accounts for many student errors. Following are some item "traps" to watch out for in multiple choice testing, accompanied by some reminders as to how to avoid them.

1. Find key words. Fluid readers, who tend to skim rapidly through prose material as well as test material, may skip over key words in test items. See the following example:

    Scout Troops A and B are taking part in a "walkathon" benefit. It is known that Troop A can hike 20 miles in about 8 hours. Troop B can hike 20 miles in about 4 hours. On the day of the walkathon, Troop A quits after about 4 hours. Troop B starts hiking where they left off. How many hours does it take Troop B to finish the total 25-mile hike?
    a) 1 b) 2 * c) 3 d) 5

    Some students, failing to read carefully, would figure that the hike might be the "20 miles" long mentioned earlier, and come up with answer b. Others might think both troops walked the entire distance and choose answer d. "Starts hiking," are the key words here.

2. Distinguish between similar appearing words. Well-constructed test items always contain a few attractive wrong answers. In problems involving computation, these take the form of logical errors; in verbal items, these appear in the form of very similar words. See the following example:

   (Fill in the blank.)
   The policewoman received a commendation for her ______________
   work in rescuing the victims of Saturday's assault.
   a) meticulous
   b) meretricious
   c) miraculous
   * d) meritorious

3. Watch out for negatives (and double negatives). Many test constructors use negatives both in general directions and in the items themselves. Statements such as the three below tend to confuse students who have not practiced the particular mode of answering questions.

   Put a line through the sentence which is incorrect...;
   ...all of the answers are correct except...;
   Circle any punctuation mark which should be omitted.

   Use of "not" and negative prefixes within items may also be confusing as in this true-false item:

   A not atypical shape of the gentian flower in the East is that of a bell.

   Students should be shown how to cancel double negatives to get meaning out of certain test items.

4. Ignore irrelevant material. Knowing what to ignore in responding to items is a two-step procedure. First, one should focus on the command or question ending the item. See what it asks the student to do. Very often excess verbiage "pads" the body of the item, making it more true to life, but also making it confusing to the unwary. Focusing on the command enables the student to weed out unnecessary information as he reads. If there are many such complex items, it might be a good idea to start reading with the actual command. See the following example:

   Johnny was 50 inches tall and weighed 72 pounds at the age of nine. At ten, he was 53 inches tall; and by eleven, he had reached 56 inches and weighed 80 pounds. By the end of seventh grade (13 years old), he weighed 95 pounds and was 65 inches tall. What was his average gain in inches between his tenth and thirteenth year?
   a) 1.0 b) 2.0 * c) 4.0 d) 5.0

   Only three pieces of information are needed from the entire paragraph. Because of the many irrelevant bits, however, students may be either confused or at least slowed in their progress through the test. Therefore the student would perhaps increase his efficiency and accuracy to read first the command at the end of the item, search the item for the necessary information, then proceed to answer the question.

5. Use built-in clues. In certain poorly constructed tests, answers may be incorrect only because they are the wrong part of speech or because they constitute faulty constructions. See the following examples:

   That boats constructed of wood and reed could successfully navigate between South America and Polynesia was demonstrated by an:

   a) Navigator
   b) Geographer
   * c) Anthropologist
   d) Mariner

   or

   List all the colors in the national flag of Iran:

   a) ____________
   b) ____________
   c) ____________

D. Student's Ability to Eliminate Wrong Answers Systematically

There are some general techniques which can help the student eliminate wrong answers for any particular item. Eliminating wrong answers will reduce the total number of alternatives that need to be considered. The following techniques are suggested.

1. Search for an answer in the same form as the question. If the question asks for "feet," eliminate an answer with inches; if it asks for "percent of time," don't give actual time.

2. Read each choice before marking your answer.

3. Fit each choice into the blank in turn, to find the phrase that best completes the sentence. Can any choice be eliminated on the basis of violation of a part of speech, a grammar rule, or common sense? See the following example:

   (Fill in the blank)

   __________________________, my grandmother gave me the family pearls.

   a) At the age of eighteen
   b) At eighteen
   * c) When I was eighteen
   d) At eighteen years of age

E. Student's Ability to Apply Special Strategies to the Various Types of Objective Test Items

1. True-false items. It is difficult to make a statement that everyone can agree on. Therefore, statements containing words such as "no," "none of," "never," "everyone," and "all," should be examined carefully. See the following examples:

   All mammals eat meat.
   All the states signed the Declaration of Independence.
   The government has never rejected a correctly filed claim.

For statements such as the above, the student should substitute modifiers such as "some," "usually," or "often." If these make better sense, the statement as originally given is probably false.

2. Multiple choice items. In multiple choice items, the test constructor has tried hard to find good "distractors." The student should make sure to locate the very best of several good answers before he proceeds.

3. Matching items. In matching items, the student should try to figure out whether answers may be used more than once, or whether there are more answer choices than required. Care should be taken to keep all options open for consideration unless the student is positive that there is a straight one-to-one match. In any case, the student should complete all matches he can, being sure to return to finish any items left unmatched.

4. Completion, blanks. Students should fill in blanks with partial answers or "own words" when they cannot recall complete or technical answers. Most teachers will give partial credit for such responses.

F. Student's Ability to Use Error Strategies

When all else fails, there are a few remaining strategies which the student may use, especially if guessing is a sound strategy.

1. Jot down a note. If the problem is failure to understand what the item means or wants, the student may jot down a few words to convey his problems. Perhaps the teacher will also see the difficulty and give partial credit.

2. Compare answers with other correct answers. Test constructors usually try to touch on all major issues when developing tests. If a single event, person, or date has been the correct answer on several items already, it is likely that some other answer will be correct for the hard-to-solve item. For example, if Pasteur, Salk, and Sabin have been adequately covered by other items, the answer is probably whoever else remains. See the following example:

   Who perfected the measles vaccine?
   a) Salk
   b) Sabin
   * c) Enders
   d) Jenner

3. Check answer choices for length and specificity. An answer, in order to be correct, must sometimes contain sufficient modifiers, disclaimers, and subordinate clauses to insure item accuracy. See the following example:

   It may be said that poor homes cause delinquency
   a) all the time
   b) none of the time
   * c) part of the time (depending also on other factors)
   d) most of the time

4. Check for correct answer "pattern." Occasionally, test constructors will use some non-random way to place correct answers in multiple choice items. Many persons prefer not to place the correct item first or last -- they consider these "give away" positions that hinder student thinking. Few persons actually use some random selection scheme for assigning answer position. A quick eye-check through already finished items should reveal whether this is true for any particular test.

G. Summary

To summarize, follow the procedures below for maximum test-taking efficiency.

1. Read general instructions carefully.
2. Scan test for content, length.
3. Plan timing strategy.
4. Assess difficulty level, and plan strategy.
5. Read each item, each special instruction carefully.
6. Answer all easy items first, marking those left undone.
7. Return to difficult items, using item and error strategies.
8. Let test work for you; often the clue to one item lies in another.
9. Feel free to change answers if you believe working with the test has helped you recall more correct information.
10. Check for items left blank, and guess if appropriate to do so.

PART II: ESSAY TESTS

I. Advantages of Essay Tests

Teachers often use different criteria in grading essay tests. When teachers were asked to list the qualities they look for in student essays, the three qualities mentioned most frequently were reasoning ability, factual accuracy, and relevance to the question. When teachers were asked to list their reasons for giving poor grades on essays, the three reasons mentioned most frequently were failure to reason properly, failure to express ideas clearly, and failure to organize replies. In both research studies, reasoning ability was singled out as the crucial factor looked for in essay writing. Test constructors generally agree that the major advantage of the essay lies in its ability to measure higher level skills.

More specifically, essay questions have these advantages.

- They can pose situations and problems as they occur in every day life.
- They call for the use of "recall" skills at a higher level than those called for in simply recognizing the truth or falsity of a statement.
- They call for higher level skills in general than do multiple choice items. Instead of simple recognition, application, definition, and translation skills, essay questions may call for the integration skills involving analysis, synthesis, and even informed evaluation.

II. Use of Higher Level Skills in Essay Tests

It is unfair to expect students to use skills on tests that have not been practiced in the classroom. Ability to use these "higher level skills" involves the following factors: (1) knowledge of subject matter basics such as principles, key vocabulary, key concepts; (2) ability to apply basic English composition skills; (3) understanding of what test directions ask the student to do; and, (4) practice in higher level skills such as analyses, synthesis, and evaluation. The first two items are for the most part beyond the scope of this booklet. The last two are discussed in the sections below.

A. Understanding What the Directions Ask the Student to Do.

Often we hear students lament, "But I didn't know what the teacher wanted!" Teachers, because of years of experience, have built-in definitions of what they mean by specific essay directions. Students, however, often learn only by making errors. Below is a list of directions commonly used, along with their definitions. Before the test, teachers and students should agree as to the meaning of these directions.

1. Name, list, mention, give: simply list in 1, 2, 3 order what is asked for; no sentences necessary.

2. State: describe, define, or point out briefly; no discussion should be necessary; simple lists, outlines, or single sentences are adequate.

3. Give the principal of: state the law, or principle, or rule called for; no examples are required.

4. Outline: arrange information in outline form; the simple rules of outlining apply.

5. Trace: give events in the order in which they occurred. It is important to pick out major points only with liberal use of transitional phrases and cause and effect relationships.

6. Summarize; give the significance of: present both major points and major accepted conclusions or outcomes. Your opinions about a matter are not usually required. In other cases, the teacher expects you to apply principles and concepts stressed in class.

7. Give examples of; illustrate: give instances of, or sample occurrences, usually a simple list will do. It usually does not mean "draw a picture."

8. Put in your own words: translate from technical, literary, or other special languages into every day English. In some cases, this involves use of such things as diagrams, charts, and graphs.

9. Identify, explain, describe, show, prove, define: give the pertinent characteristics of; separate from other events, classes, principles, groups. The question is asking you how you can distinguish this particular happening from some other.

10. Compare: give both similarities and differences. Be careful to itemize differences in such comparisons.

11. Contrast, distinguish: show differences between two events, theories, entities.

12. Interpret: give your own conclusions about; relate cause and effects; or give your own opinion about the meaning of a quotation.

13. Discuss: tell all you can about the topic mentioned in the time available.

14. Comment: state your own reaction to the topic under consideration. While you have great latitude here, you should be careful to support your opinion with facts or illustrations.

15. Criticize, evaluate: give evidence on both sides of an issue; draw conclusions from this evidence; and finally, make a judgment as to the relative worth, quality, or value of the topic in question.

B. Practice for Testing of Higher Level Skills

The directions listed previously may be organized into five groups, each requiring special abilities and practice.

Directions Given	Ability Needed	Appropriate Practice
Name State Give principle of	Simple recall	Memorize key vocabulary. Memorize key concepts.
Outline Trace Summarize	Complex recall	Organize events according to cause and effect in chronological order.
Give examples of Put in own words	Translation of technical language Application of principle	Put principles, concepts in own words. Apply principles to events in own life, draw examples from own experience.
Compare Contrast	Analysis of similarities, differences	Organize information into categories, classes as "same," "different," or "unrelated."
Interpret Discuss Comment Criticize, evaluate	Draw conclusion Integrate information Make judgments	Do all above; then make judgments, evaluations.

III. Taking the Essay Test

A. Developing an Overall Strategy

An overall strategy is of first importance in doing well on essay tests, as many procedural decisions are left up to the student. Following are three suggestions for developing profitable strategies:

1. Glance (skim) over entire test. This skimming has a two-fold purpose: (a) to locate key words and phrases which will be helpful in answering questions, and (b) to see whether there are objective ways (such as the granting of a certain number of points) to determine the best use of the time available.

2. Apportion time to the various items. If different numbers of points are assigned to certain questions, the student should devote an appropriate portion of time to each item. In some cases, students may wish to start with those items with the biggest payoff. If the same number of points is to be given for all items, it may be helpful to start with those on which the student expects to do well. In other cases, it makes sense to start with items with related content, as it is often easier to develop logical trains of thought for such items.

3. Prepare a brief outline for each item. Jotting down brief outlines and reading them over will help the student give some logical organization to his/her answers. Whenever necessary, the phrases may be renumbered to improve arguments or to straighten out the order of events. Key reminder words necessary for illustrations or examples may be added as they occur. It is suggested that the student attempt to outline all items he/she intends to do before starting to write out any complete answer. Consider the following item:

> What does the phrase "checks and balances" mean in relation to our system of government?

Assume that the student is rather weak in American government, but knows a few facts and so jots these down.

(Student's Outline)

1. Electorate
   - a) Voices needs
   - b) Elects representatives

2. Legislative branch
   - a) Makes laws
   - b) Votes appropriations

3. Executive branch
   - a) May veto
   - b) May make executive orders

4. Judicial branch
   - a) Interprets laws
   - b)

As an after thought, the student may want to add an item as

2. c) May override veto

Even if, for reasons of time, the student is unable to write out the full answer, the teacher may grant at least part credit. In any case, the outline must abstract the crucial elements of the question and use explicit, short phrases. No elaborate outlining should be attempted.

B. Writing Out the Answer

The following ten procedures should help the student maximize his/her chances of writing a good essay:

1. Apportion time in the writing of the individual item. Approximately one-third of the time spent on a single essay item should be set aside for setting up an outline and for final proofreading of the essay. For instance, if about 15 minutes are to be spent on an item, about three minutes might be spent in outlining, and about two in checking the final essay.

2. Understand and take advantage of directions for item. If broad commands such as "Discuss..." or "Give your opinion of..." are used, the student has latitude in expressing him- or herself. All students should be able to write something. If the instructions are limiting such as "List..." or "Outline...," the student should restrict him- or herself to short, specific phrases. Writing out elaborate complete sentences when not required is wasteful of both the student's and the teacher's time.

3. Carry over outline system into body of complete answer.

4. Begin essay with a restatement of the question. Beginning the essay with a brief restatement of the question will indicate to the reader that the student understands what is to be done and provides a good topic sentence. If a quotation has been given, the student should know how to present only a part of it. See the following example:

> The significance of the quotation ending "... the only thing we have to fear is fear itself" was not apparent at the time the speech was made ...

5. Use short sentences, paragraphs.

6. Use pictures, diagrams.

7. Use subject matter vocabulary.

8. Emphasize points stressed by the teacher.

9. Conclude with summary statement.

10. Proofread the essay for such things as gross errors, awkward usage.

C. Final Hints

1. Leave space between lines.

2. Leave margins on top, sides, and bottom of essay, if possible.

3. Use ink instead of pencil.

4. Explain any difficulty.

5. Do not pad.

6. Do not repeat information given once.

7. Do not make the same error twice.

IV. Grading the Essay Test

Teachers cannot help being affected by a great many factors other than the level of content mastery displayed by the essay writer. The following four factors summarize the most important sources of grade determination:

A. Mastery of Content

Was the student able to answer the question? Is there an obvious grasp of the meaning of the major issues, facts, etc.? Is key vocabulary used properly?

B. Level of Thought Process Used

Did the student go beyond a mere recital of the facts? Did he/she progress up the "skill ladder" when required?

- define terms
- summarize
- illustrate
- analyze
- synthesize
- evaluate

C. Quality of Presentation

Did the student generally adhere to the rules of usage, grammar, punctuation, spelling, style, and format?

D. Rate of Completion

Did the student apportion the time available so that he/she was able to attempt all items?

PART III: POST HIGH SCHOOL TESTS

I. Overview

Students are often surprised and dismayed by the variety and complexity of tests they take for placement and selection beyond high school. Unlike most tests given in high schools, those given for training after high school are usually wide-ranging and comprehensive. Students of diverse backgrounds should have an equal chance to do well. However, the comprehensiveness of many tests leaves students in doubt about how to prepare for them. In addition, today's high school programs often stress independent study, field experiences, and other activities difficult to assess by paper-and-pencil testing.

Doing well on such tests usually involves two factors: familiarity with or special ability for taking tests of specific content, and test wiseness, or experience with specific styles of tests. While both of these factors are crucial, familiarity with test content is foremost. In tests of aptitude in which native ability plays a greater role, test wiseness may appear more important. Preparation for such tests, then, requires preparation in basic or specific areas as well as practical experience and training in taking tests.

Over the last twenty years, the art (and business) of taking tests has grown to include elaborate courses in how to study, speed reading, and how to take tests (including innumerable books on how to take specific tests).

II. Basic Steps in Test Preparation

For most advanced tests, there are specific procedures which will help the student improve his/her performance on the test that counts. Such procedures include:

A. Communicating with Testing Agency

The agency or board in charge of the testing program should be contacted for bulletins, practice tests, and information on such things as number of "tries" allowed and cost of taking the test.

B. Searching for Test Preparation Materials

Commercially available test preparation books are helpful for two reasons: (1) they help the student delineate the scope and difficulty level of the test to be taken, and (2) they present the item types the student may find on the test.

C. Taking Any Practice Test Available

Practice tests, whether they be old editions of tests or materials that have been school prepared or commercially prepared, usually provide the student with some idea of whether he/she is truly ready for the test in question.

D. Preparing Review Based on Results of Practice Tests

Errors made on practice tests should be recorded and organized for specific content, and review time should be allocated accordingly. Under no circumstances should students attempt to use test preparation books as actual sources of content to be learned. Only guided study of standard materials is of any real help in mastery. Lists of standard references in many fields are provided by the better test preparation books.

E. Taking Additional Practice Tests

Most test preparation books contain two or more practice tests enabling the student to self-test before and after review. Or, in certain cases, practice tests prepared by different publishers can be used. If the student's review has been both comprehensive and remedial, scores should increase on subsequent testings.

III. Commercial Test Preparation Books

As discussed above, commercial test preparation books may prove practical in certain circumstances. In searching for such books, it is important to check through all those available and attempt to get the best and latest editions. In surveying the field, it is easiest to look at the lists of titles usually included in any publisher's more expensive paperbacks. Often it will be discovered that a book has been published specifically for the test in question. In rapidly changing fields such as computer programming and civil service, care must be taken to obtain books prepared for current tests. Unfortunately, book stores stock many test preparation books for tests which have been superceded. When in doubt, write directly to the publisher for the most recent titles.

IV. Available Publications

Several publishers specialize in test preparation books for tests given to persons who have completed or plan to complete a secondary education. Four such publishers and their addresses appear below.

Barnes and Noble Books, a division of Harper and Row, Publishers
(Books may be ordered at book stores.)
Barron's Educational Series, Inc., 113 Crossways Park Drive, Woodbury, New York 11797
Arco Publishing Company, Inc., 219 Park Avenue South, New York, New York 10003
Made Simple Books, Doubleday and Company, Inc., Garden City, New York
(Books may be ordered at book stores.)

A. For Students Planning to Attend College

1. College Entrance Examinations (Barnes and Noble) covers College Entrance Examination Board tests such as PSAT/NMSQT, SAT, Advanced Placement Tests, American College Testing examinations and contains practice tests for both aptitude and achievement tests plus useful general information for many of the higher level tests. This book also lists the titles available for review of subject matter areas.

2. How to Prepare for the PSAT-NMSQT and How to Prepare for College Entrance Examinations (Barron's) -- similar to above.

3. Scoring High on NMSQT-PSAT (Arco) -- similar to above.

These books carry lists of the publisher's titles for other college entrance tests and for specific achievement tests. All such books should be checked against the testing agencies' most recent test descriptions to make sure the book covers any recent changes in the tests. Also of interest to the college bound student are books summarizing characteristics of given colleges, with indications of Scholastic Aptitude Test and American College Testing Program score levels required by the various colleges. Typical of these is Barron's Profiles of American Colleges.

B. For Students Seeking Work in Government Jobs After High School or College

The Civil Service Handbook (Arco) gives a brief overview of many federal, state, and local government positions; contains a few sample questions typical of tests on each; and shows diversity of jobs available for persons with various educational backgrounds.

C. For Students Seeking Specific Service Positions

1. Barron's How to Prepare for Civil Service Examinations

2. Office Assistant - Clerk GS1-4 (Arco)

Both books provide practice tests for entry level civil service clerical positions.

3. Career Positions for Men and Women (Barron's) is a series of separate test books, one for each of over 150 different jobs. Sample titles are:

Post Office Clerk-Carrier
Auto Mechanic
Bus Maintainer
Electrician
Fireman, F.D.
Guard, Patrolman
Telephone Operator
Heavy Equipment Operator
Hospital Attendant
Janitor - Custodian
Laundry Worker
Maintenance Man
Painter
School Crossing Guard
Welder

D. For Students Considering Military Service

1. Practice for the Armed Forces Tests (Arco)

2. Practice for Army Qualification Battery (Arco)

Both books give explanations of and practice tests for basic military placement testing.

E. For Students Studying for the High School Equivalency Examination

Barron's How to Prepare for the High School Equivalency Examination (GED) provides students with practice tests, review materials, and requirements of the various states.

PART IV: ANNOTATED BIBLIOGRAPHY ON TEST-TAKING SKILLS

I. Articles and Documents.

Cluff, Robert B., and Smith, Charles W. "Humanizing the Testing Aspect of Evaluation," 27 pp., U. S. Department of Health, Education and Welfare, Office of Education (no date). ED 076 498

This paper presents guidelines for teachers for effective preparation and presentation of teacher-made tests. It outlines some tools useful in test preparation, such as teacher file cards of items covered in class, and clearly defined course objectives. Also covered are some principles to be considered in test preparation, such as, for a test to be valid, questions must be in line with what was actually taught. It suggests pre-tests as a means of evaluating instruction and preparing students for testing.

Erickson, Michael E. "Test Sophistication: An Important Consideration," Journal of Reading, Vol. 16, No. 2 (November 1972), 140-144. EJ 070 710

This article gives instructions on how to improve student test-taking skills, suggesting that students may fare poorly on standardized tests because of an acute deficiency in test-taking ability. The author identifies the skills peculiar to each type of item found on standardized reading tests, suggesting students be trained to readily identify the general skills being used by each type of item. He outlines four basic item types which the student must be able to identify: central thought, detail, context, and inference; and he tells how to answer each type.

Ford, Valeria A. "Everything You Wanted to Know About Test-Wiseness, 30 pp., U. S. Department of Health, Education and Welfare, National Institute of Education, August 1973. ED 093 912

The purpose of this paper is to define and elaborate on the term test-wiseness. It includes motivational aspects in addition to actual techniques that a test-wise examinee should employ to improve test performance, such as following directions, making efficient use of time, developing strategies for analogy and multiple-choice questions, and guessing. Activities for very young children are based on the specific abilities which are needed by pre-school and primary grade children in taking various standardized readiness tests (e.g., Metropolitan Readiness Test). These activities include teaching the concepts most like, same, different; working on columns and rows; becoming familiar with format and language used in standardized tests. Empirical research supporting the suggested techniques is elaborated in detail. A rationale for the use of a test-wiseness learning program to be used in the school is presented; and several possible procedures as to how such a program could be implemented are suggested.

Goolsby, Thomas M., Jr., and Wray, Grace A. "Practice Test for Pre-Primary and Beginning First Grade," 8 pp., Office of Education, Department of Health, Education, and Welfare, Washington, D. C. Cooperative Research Program, March 1969. ED 054 219

This is a pictorial practice test which prepares pre-primary and beginning first grade children who have not had experience with a group test to do tasks similar to those they will find on a test. The instructions for the practice test stress important cues and directions helpful during test administration, and include the entire dialog for the test procedure.

Hallberg, Albert. "Facing the Test: English," Dade County Public Schools, Miami, Florida. 1971, 21 pp. ED 064 720

This Quinmester Course is designed to help students apply the principles of effective study in a variety of testing situations. Emphasis is on developing such skills as planning wise use of allotted time, adapting reading rate to various types of test items, identifying types of analogous relationships and word attack skills, including recognition of Greek and Latin roots and affixes. A resource listing of six pages is included.

Manpower Administration, Department of Labor, "Doing Your Best on Tests," 14 pp. Superintendent of Documents, U. S. Government Printing Office, Washington, D. C., 1971. ED 080 593

A guide to taking aptitude tests, this booklet briefly discusses, with drawings, the following: Why Take an Aptitude Test; How Should You Study for Aptitude Tests; Your Physical Condition Is Important; How You Feel About Taking Tests Makes a Difference; The Ones Who Give the Tests Are There to Help You; Some Rules to Know. A test to show how much the reader has learned about taking aptitude tests is provided along with the correct answers. The booklet concludes with some brief hints for test-takers.

Millman, Jason; Bishop, Carol H.; and Ebel, Robert. "An Analysis of Test-Wiseness," Educational and Psychological Measurement, Vol. 25, No. 3, 1965. 707-726

This article offers an analysis of test-wiseness as a source of variance in test scores. It defines test-wiseness as a subject's capacity to utilize the characteristics and formats of the test and/or test-taking situation to receive a high score, independent of the examinee's knowledge of the subject matter being tested. The article is not concerned with the general mental attitude and motivational state of the examinee, but rather is restricted to the actual taking of (not preparing for) objective achievement and aptitude tests. It stresses strategies of time use, error avoidance, guessing, and the use of cues as techniques in effective test-taking.

II. Books.

Honig, Fred. Taking Tests and Scoring High. Original Title: How to Study for Tests and Pass Them. New York: Arco Publishing Co., Inc., 1967.

Subtitled How to Study For Tests and Pass Them, this book emphasizes the development of successful study habits. Part 1 contains chapters on the following topics: What It Takes To Study Successfully, Analyze The Test, Where To Study, When To Study, How To Study. In addition, there are chapters in Parts 2 and 3 on the two basic forms of test questions (objective and subjective), the basic types of each found on most tests, and subject areas of test questions (verbal; numerical; spatial; mechanical skills; observing and remembering; problem solving; judgment and reasoning; and following directions). The final section, Part 4, includes chapters on review of one's test preparation, strategy of the test-taker during the examination, and preparation for an oral test and/or interview.

Hook, Julius N. Testmanship: Seven Ways to Raise Your Examination Grades. New York: Barnes and Noble, Inc., 1967.

The author defines "testmanship" as the advantageous display of one's ability and knowledge in a test situation. Defining the basic rules for success, it includes knowing different kinds of tests, how tests are graded, preparation, and thinking skills necessary for different question types. The book includes a chapter on tests of reading ability.

Millman, Jason, and Pauk, Walter. How To Take Tests. New York: McGraw-Hill Book Co., 1969.

This book concentrates on the principles of skillful test taking of both standardized and teacher-made tests. The author points out that "...the best way to prepare for an examination is to master subject matter through study and periodic review.... There is no quick and easy way to score high without serious study.... However, the student who wants his test marks to reflect his diligence and preparation should find this book especially rewarding." The book focuses on achievement and aptitude tests, presenting and analyzing useful principles of test-taking including: using time wisely, reading directions and questions carefully, checking answers for errors. Sections are included on special types of test questions (for example, essay and true-false) and tests of selected abilities (for example, vocabulary tests).

NOTE: The book cited below is currently listed as being out of print but its excellence is such that it is recommended here if available.

Huff, Darrell. Score: The Strategy of Taking Tests. New York: Appleton-Century-Crofts, Inc., 1961. (o.p.)

Based on the principle that lack of skill or sophistication in the art of taking tests is a handicap, this book is aimed at developing such skill in the reader. It attempts to develop confidence; examines different kinds of tests; and provides systems, methods, devices, techniques and special tips for attacking efficiently and briskly any test the reader may meet. It details the specific tests that will be encountered in a variety of fields and includes representative test items for practice.

TEACHER GUIDE ON FORMAT AND SKILLS CLASSIFICATION OF THE IOWA TESTS OF BASIC SKILLS (ITBS)

GRADE 3

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INTRODUCTION

This booklet contains information on the ITBS Format and Skills Classification for Grade 3. The purpose of this booklet is not to inform teachers of what the test items are; rather, the format items are given to provide teachers with examples of formats to which they can expose students so that students will not be handicapped by format-related problems. The skills classification list is given -- along with suggested questions to use with students -- to provide teachers with a clear idea of the kinds of cognitive skills required of the students by the tests.

There is no intent to "teach to the test" nor to give "last minute" training to students. Nor is there any intent to "prescribe curriculum." Rather, the booklet familiarizes students with the mechanics involved in test-taking and familiarizes teachers with ITBS skills as they relate to the wider, year-long scope of the MCPS curriculum.

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PART IV: QUESTION FORMAT AND SKILLS CLASSIFICATION (Grade 3)

Reading Comprehension

QUESTION FORMAT

Given a reading selection, answer questions based on the information given. Selection may be a single paragraph, several paragraphs, several numbered paragraphs (¶), or a poem.

Skippy is a little puppy.
He likes to run after cars.

What does Skippy like to do?
1) Ride in the car
2) Bite car tires
* 3) Chase cars
4) Follow trucks

GRADE 3 SKILLS CLASSIFICATION

D (Details) - To recognize and understand stated or implied factual details and relationships

D-1 To recognize and understand important facts and details
Who? When? Where? Which? How many?

D-2 To recognize and understand implied facts and relationships
How? Why? In what way? What ought to happen?

D-3 To deduce the meaning of words or phrases from context
What does "______________ " mean?
What is meant by the expression, "________________"?
What do people do when they "____________________"?

Reading Comprehension

P (Purpose) - To develop skill in discerning the purpose or main idea of a paragraph or selection

P-1 To detect the main purpose of a paragraph or selection
Which would be the best name for this story?
What is the purpose of paragraph 3?
What was the author's purpose in writing this article?

P-2 To recognize the main idea or topic of a paragraph or selection
What is the best name for this story?
What is the one most important thing to remember from the story?
What is the topic sentence of paragraph 4?

E (Evaluation) - To develop skill in evaluating what is read

E-1 To develop generalizations from a selection
Why is "______________" a good name for this story?
Why do you think this is not a true story?
What does this story show?
Which of these familiar sayings best shows the meaning of this story?

E-4 To recognize outstanding qualities of style or structure
Why are there quotation marks around the words, "__________"?
Why are the words ____________ in italics?
What is supposed to rhyme with __________?
Would you expect to find this story in a newspaper or a story book?
To whom is the author speaking?

Language Skills

Spelling

QUESTION FORMAT

Given four words, pick the one that is spelled incorrectly. A fifth choice is (No mistakes).

Ex. 1		Ex. 2	
1)	good	1)	bad
* 2)	skool	2)	milk
3)	book	3)	stop
4)	jump	4)	look
5)	(No mistakes)	* 5)	(No mistakes)

GRADE 3 SKILLS CLASSIFICATION

D- Double letter
    Double letter eliminated (lesson-leson)
    Unnecessary double letter (riding-ridding)

E- Final e; e before suffix
    Final e (smoke-smok)
    E before suffix (forget-foreget, basement-basment)

I- Interchanged letters (guide-giude)

4

K- c, ck, k substitutions
    block-blok   blanket-blancket   scraps-skraps

L- l, el, le substitutions
    table-tabel   barrel-barrle   folk-fok

N- No mistakes (See Example 2 in QUESTION FORMAT)

Spelling

O- Omitted letters (grandmother-granmother)

R- r, er, or substitutions
after-aftr perhaps-prehaps worm-werm

S- s, sc, sh, c, ch, t, z substitutions
froze-frose city-sity science-sience ask-ast
sure-shure rise-rize rash-rach

V- Vowel substitutions
Single vowels (broken-brokin)
Diphthongs (pieces-peices)

W- w, u, ou substitutions
flower-flouer house-howse touch-tuch

Y- y, ey, i substitutions
happy-happey monkey-monky opinion-opinyon

Language Skills

Capitalization

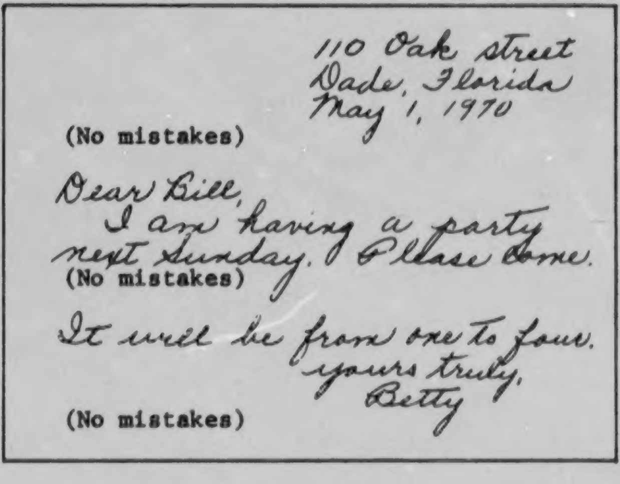
QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in capitalization appears. The fourth choice is (No mistakes).

Ex. 1
* 1) I asked john
2) to go to the store
3) with me yesterday.
4) (No mistakes)

Ex. 2
1) My friend has
2) moved to a town
3) called Woodside.
* 4) (No mistakes)

Given a handwritten letter, choose the line in which a mistake in capitalization appears.



Ex. 3
* 1) 110 Oak street
2) Dade, Florida
3) May 1, 1970
4) (No mistakes)

Ex. 4
1) Dear Bill,
2) I am having a party
3) next Sunday. Please come.
* 4) (No mistakes)

Ex. 5
1) It will be from one to four.
* 2) yours truly,
3) Betty
4) (No mistakes)

Capitalization

GRADE 3 SKILLS CLASSIFICATION

1. The pronoun I

2. Names of persons or animals (Betty, John, Rusty, Puff) and initials of persons (C. R. Johnson, Ann B. Smith)

4. Titles of respect, honor, or rank (Miss Green, Captain Star, Doctor Mann)

5. First word of a sentence

7. In writing letters, the first word and the word which stands in place of the person's name in the salutation (Dear Sir, Dear Madam)

8. In writing letters, the first word of the complimentary close (Sincerely yours, Yours truly, Very truly yours)

10. Days of the week

11. Names of months

12. Names of holidays and religious days (Thanksgiving, Easter)

13. Titles of books, music, magazines, etc. (Bambi, Winnie the Pooh)

14. Names of cities and states (Chicago, California, Clear View, Fair Hills)

15. Names of countries and continents

17. Names of streets, avenues, etc.

18. Names of rivers, oceans, canals, mountains, etc.

19. Names of buildings, schools, parks, etc.

21. Proper adjectives (Chinese food, Dutch shoes, German boy)

22. Names of specific organizations (Red Cross, Salvation Army, Riverside Boy's Club, Western Steel Company)

Ov- Over-capitalization

I fell into the River and got all wet.
We had fish for Dinner but it had too many bones for me.
Give me a Dime so I can buy a piece of gum.
We went to the park and saw a little Cat playing in the sun.
Jane and Jack want to go to the Movies.

N- No mistakes (See Ex. 2 in QUESTION FORMAT)

Language Skills

Punctuation

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in punctuation appears. The fourth choice is (No mistakes).

Ex. 1
1) The goat
2) ran through the
* 3) picket fence
4) (No mistakes)

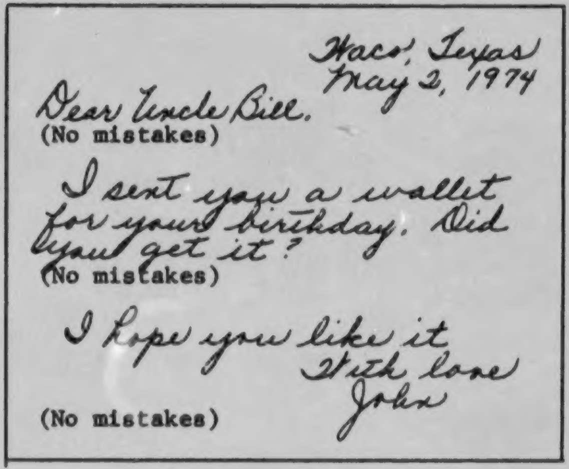
Ex. 2
1) We're going to
2) the pool for a swim.
3) Do you want to come?
* 4) (No mistakes)

Given a handwritten letter, choose the line in which a mistake in punctuation appears.

Ex. 3
1)
2)
* 3)
4)

Ex. 4
1)
2)
3)
* 4)

Ex. 5
1)
* 2)
3)
4)



Waco, Texas
May 2, 1974
Dear Uncle Bill.
(No mistakes)

I sent you a wallet
for your birthday. Did
you get it?
(No mistakes)

I hope you like it
With love
John
(No mistakes)

GRADE 3 SKILLS CLASSIFICATION

1. Use of period
    - 1a. Use of period at end of complete declarative sentence
    - 1b. Use of period with abbreviations (Mr., Mrs., Dr.)
    - 1c. Use of period with initials standing for name (John J. Jones, P. L. Smith)

2. Use of question mark

3. Use of comma
    - 3a. Use of comma to separate words in a series
    - 3b. Use of comma to separate names of city and state
    - 3c. Use of comma to separate date of month and year
    - 3d. Use of comma at end of complimentary close of a letter (Yours truly,)
    - 3e. Use of comma at end of salutation in friendly letter (Dear Sue,)

4. Use of apostrophe
    - 4a. Use of apostrophe in contractions (won't, can't)
    - 4c. Use of apostrophe in specific words (Hallowe'en, ma'am)

6. Use of colon
    - 6c. Use of colon to separate numbers indicating clock time (4:00)

OV- Over-punctuation
- Ov-1 Use of comma to mark a trivial phrase
    - Peter and I enjoyed looking for the rocks, at the picnic.
    - Once we lost our key and had to ask a neighbor, to let us in.
- Ov-8 Use of period after unabbreviated words
    - Sally lives on West. Main Street.

N- No mistakes (See Ex.2 in QUESTION FORMATS)

Language Skills

Usage

QUESTION FORMAT

Given three numbered sentences, choose the one that has a mistake in usage. The fourth choice is (No mistakes).

Ex. 1
1) We are finished.
2) Our cat ran away.
* 3) It ain't your toy.
4) (No mistakes)

Ex. 2
1) The paper was torn.
2) Without warning, the chain broke.
3) The gifts were wrapped nicely.
* 4) (No mistakes)

GRADE 3 SKILLS CLASSIFICATION

1. Use of pronouns
    - 1a. Use of pronouns, case forms
        - Her has a cold
        - Ask if us are invited to the party.
    - 1c. Use of pronouns, order of first person pronouns in compound constructions
        - Give that to me and Sally.
        - I and she walk together.

2. Use of verbs
    - 2a. Use of verbs, the past tense
        - He throwed the ball.
    - 2b. Use of verbs, the past participle
        - I have brung a towel.
    - 2c. Use of verbs, agreement of subject and verb
        - They has a pool.
        - There weren't enough money.
    - 2d. Use of verbs, miscellaneous forms incorrectly used
        - Leave me see that.

3. Use of adjectives and adverbs
    - 3c. Use of adjectives and adverbs, comparative and superlative forms
        - Ron eats slowlier than anyone in our class.
        - My new doll is the most pretty one on the shelf.

4. Avoidance of double negative
    - He don't never want to come home.

5. Avoidance of redundancies
    - I had me a good dog for a pet.

7. Miscellaneous word forms
    - The mouses ran across the room.

N- No mistakes (See Ex. 2 in QUESTION FORMAT)

Work Study Skills

Map Reading

QUESTION FORMAT

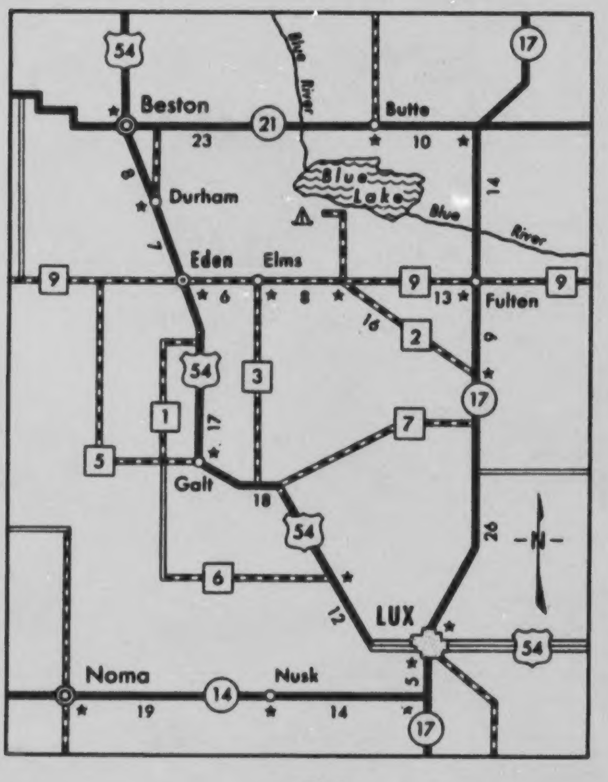
Given a map and key, answer questions about the things shown. Maps may be of city sections, countries, parks, schools, highways and roads, camps, etc.

Which of these cities is closest to Blue Lake?

1) Eden
2) Galt
3) Noma
* 4) Butte

When numerous cities and/or towns are shown on a map, the names of the cities and towns are arranged in alphabetical order, beginning near the top of the map, to help students find them quickly. Students are informed of this as follows:

> The map on this page is a part of a road map. To help you to find any city or town snown on the map, the names of the cities and towns appear in alphabetical order, beginning near the top.


54
17
Beston
21
Butte
23
10
Blue River
Blue Lake
Blue River
8
Durham
14
7
Eden
Elms
9
6
8
9
13
Fulton
9
16
2
6
54
3
1
17
17
7
5
Galt
18
54
26
-N-
6
12
LUX
54
Noma
14
Nusk
19
14
5
17

Map Reading

GRADE 3 SKILLS CLASSIFICATION

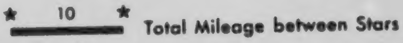
1. Ability to orient map and determine direction
    - 1a. To determine direction from orientation (compass direction)
        - What is directly south of the __________? directly north?
        - The ____________ is what direction from the __________?
        - What direction would you travel going from _________ to ____________?
    - 1c. To determine direction of river flow or slope of land
        - In which direction does the __________River flow?
        - The river running through the city flows in what direction?
        - Which river empties into a gulf? an ocean? a bay?
        - Which river flows into another river?

2. Ability to locate and/or describe places on maps and globes
    - 2a. Ability to locate and/or describe places on maps and globes through use of standard map symbols (with or without a key)

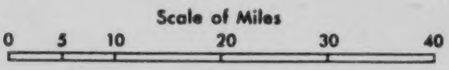
trees	railroads	state boundaries
highways	rivers	bridges
roads	mountains	cities, towns

- 2b. Ability to locate and/or describe places on maps and globes through the use of a key

distances

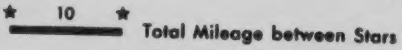


scale of miles

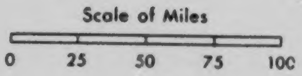


- 2c. Ability to locate and/or describe places on maps and globes through the use of distance and/or direction
    - Distance: Which town is 45 miles from __________?
    - Direction: What is the first town east of __________?
    - Distance and Direction: Which school is two miles east of the library?

3. Ability to determine distances
    - 3a. Determining distance on a road map



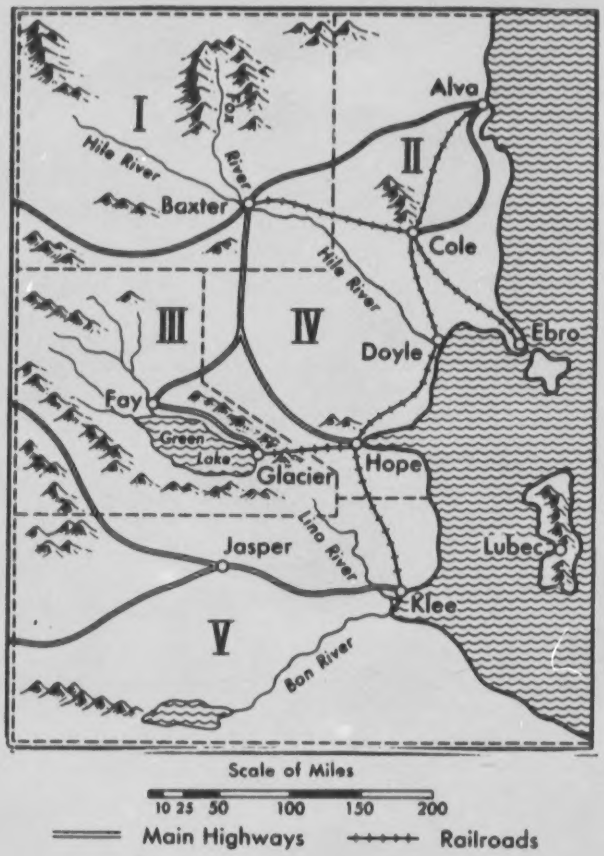
- 3b. Determining distance by using a scale of miles

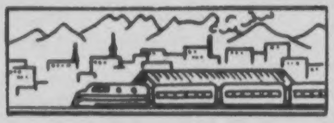


- 3d. Comparing distances
    - Which trip would be the shortest from __________?
    - What is the shortest route to travel from _______ to __________?
    - Which city is farthest from ____________?

4. Ability to determine or trace routes of travel
    - Which would you pass in driving from _________ to ____________?
    - In going from __________ to ___________, at what city would one turn off the main highway?
    - In walking from __________ to _____________, how many streets to the right are there?

7. Ability to visualize landscape features


I
Fox River
Hile River
II
Alva
Baxter
Cole
Hile River
III
IV
Ebro
Doyle
Fay
Green Lake
Glacier
Hope
Lubec
Jasper
Lino River
Klee
V
Bon River
Scale of Miles
10 25 50 100 150 200
Main Highways
Railroads



Which cities might this be a picture of?

Why is this not a picture of the city of Doyle? of Lubec?

8. Ability to infer man's activities or way of living

8a. From outline maps

Which community would you expect to have the most boat owners?
Which of these things would you take with you on a trip to__________?
Where on this map would the best location be for a gas station?
Where on this map would you see a sign showing HORSE CROSSING?

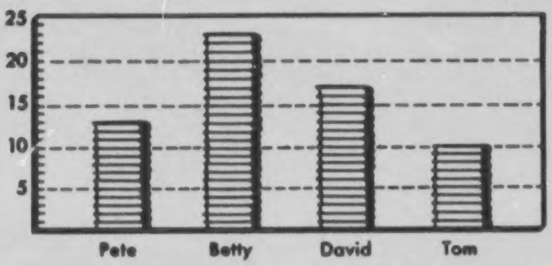
Work Study Skills

Reading Graphs and Tables

QUESTION FORMAT

Given a bar graph, line graph, picture graph, circle graph or table, answer questions based on the information provided. One of the choices may be, "The table does not tell," or "One cannot tell from this graph."

Number of Books Read by the Four Best Readers in Grade 3 between January 1 and June 1



Who read the most books?
1) Pete 3) David
* 2) Betty 4) Tom

How many pages did Tom read?
1) 10 3) 1000
2) 100 * 4) One cannot tell from this graph

Reading Graphs and Tables

GRADE 3 SKILLS CLASSIFICATION

1. To comprehend from the title, the topic on which a graph or table gives information

See Figure A

About which children does this graph give information?
Can you tell from this graph how many books were library books?

See Figure B

About which period does this graph tell?
How many boys chose to paint on this day?

3. To read amounts

3a. To read amounts by using the scale or scales on bar, line, and picture graphs

See Figure A

How many books did Tom read?
What was the total number of books read by Pete and Tom?
How many children read more than 15 books?

See Figure B

How many children worked on wood carving?
How many children spent their time reading or painting?
How many children chose an activity on this day?

See Figure C

About how tall was Fred when he was six years old?
How old was Fred when he measured 40 inches?

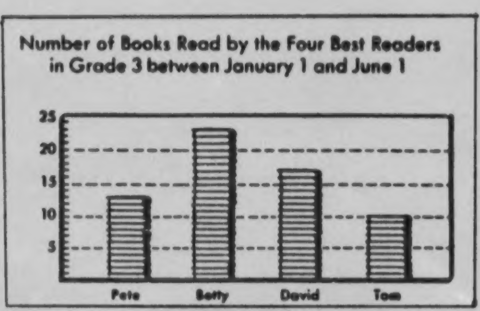

Number of Books Read by the Four Best Readers in Grade 3 between January 1 and June 1

Figure A

Each Friday the boys and girls in Grade 3 have an activity period. The drawing below shows how many children chose each kind of activity on one of these days.

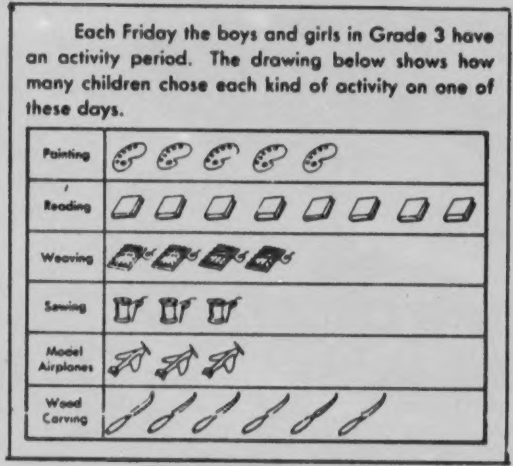


Figure B

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

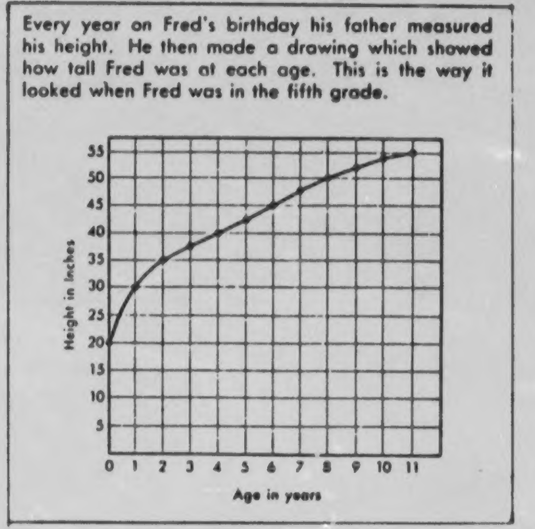


Figure C

Reading Graphs and Tables

3b. To read amounts by interpreting the sectors of a circle on circle graphs

See Figure D

How much money was made from the sale of apples and gum?
Which two things made up half of the sales?

See Figure E

Which takes Sue 20 minutes?
What time is it when Sue finishes washing her face and brushing her teeth?

3c. To read amounts by locating a cell in a table

See Figure F

How many pencils were sold on Thursday?
What was the total number of erasers sold?

See Figure G

The 16th comes on what day?
On what day does the month start?

The boys and girls at Jackson School sold refreshments at the basketball games. They made $20 altogether. The drawing shows how much was made on each thing sold.

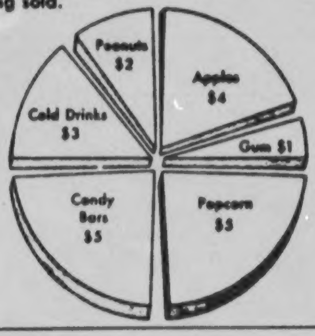


Figure D

Sue hates to get up in the morning. She has found that by planning her time carefully she can sleep until 8:00 o'clock and still get to school by 9:00 o'clock. The drawing below shows how she uses her time.

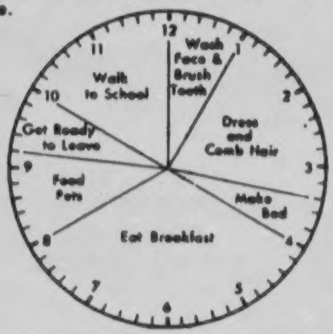
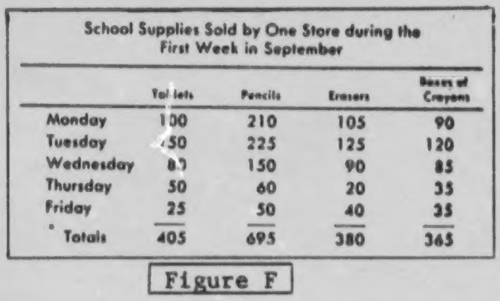


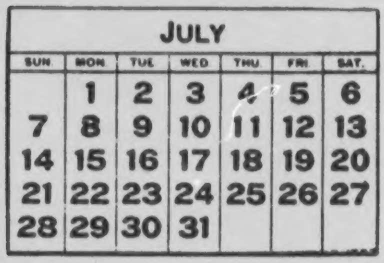
Figure E



School Supplies Sold by One Store during the First Week in September

	Tablets	Pencils	Erasers	Boxes of Crayons
Monday	100	210	105	90
Tuesday	150	225	125	120
Wednesday	80	150	90	85
Thursday	50	60	20	35
Friday	25	50	40	35
Totals	405	695	380	365

Figure F



JULY

SUN	MON	TUE	WED	THU	FRI	SAT.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Figure G

4. To compare two or more values read from a graph or table

   4a. By determining rank

   See Figure A

   Who read the least number of books?

   See Figure B

   Which was the most popular activity?

   See Figure E

   For which activity does Sue use the most time?

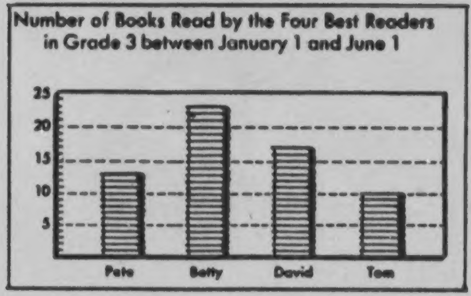


Figure A

Each Friday the boys and girls in Grade 3 have an activity period. The drawing below shows how many children chose each kind of activity on one of these days.

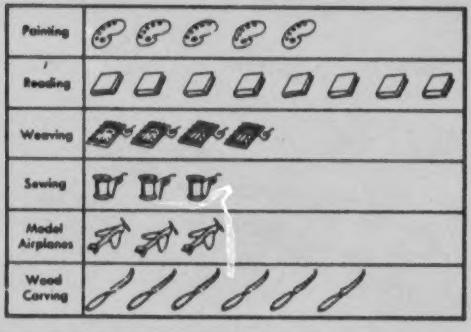


Figure B

Sue hates to get up in the morning. She has found that by planning her time carefully she can sleep until 8:00 o'clock and still get to school by 9:00 o'clock. The drawing below shows how she uses her time.

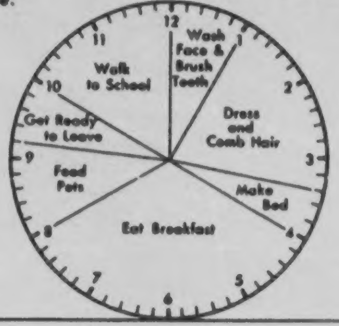


Figure E

Reading Graphs and Tables

4b. By determining differences between amounts

See Figure D

How many items sold at the game made less than $1?

See Figure E

How many more minutes did Sue spend eating breakfast than she spent making her bed?

See Figure F

How many fewer tablets than pencils were sold at the store on Monday?

4c. By determining how many times greater one amount is than another

See Figure D

Which of these things made about twice as much money as gum?

See Figure E

Which of these takes Sue exactly one-half as much time as eating breakfast?

See Figure F

How did the number of tablets sold on Monday compare with the number sold on Friday?

The boys and girls at Jackson School sold refreshments at the basketball games. They made $20 altogether. The drawing shows how much was made on each thing sold.

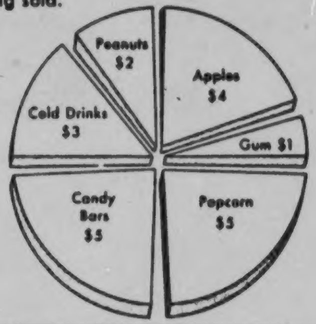


Figure D

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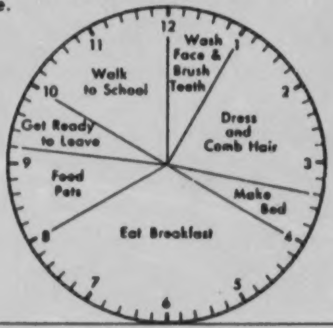

Figure E

School Supplies Sold by One Store during the First Week in September

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Thursday	50	60	20	35
Friday	25	50	40	35
Totals	405	695	380	365

Figure F

5. To determine relative rates or trends

See Figure C

During which year did Fred grow fastest?

See Figure F

During which part of the week were sales the best (beginning of the week, end of the week, same all week long)?

6. To determine underlying relationships through correct interpretation of a graph

See Figure A

Which child is most probably the fastest reader?

See Figure F

Which of these school supplies do children probably have to replace most often?

See Figure G

Helen's birthday is on the 20th. Bill is two weeks older than Helen. When is Bill's birthday?

The Friday after the 8th is a holiday. What date is that?

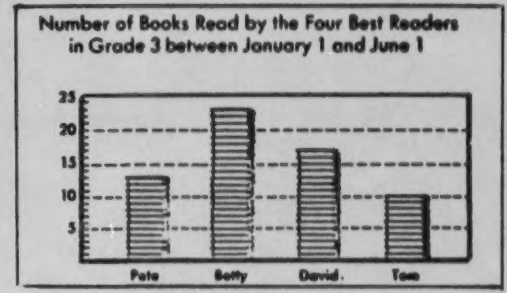

Number of Books Read by the Four Best Readers in Grade 3 between January 1 and June 1

Figure A

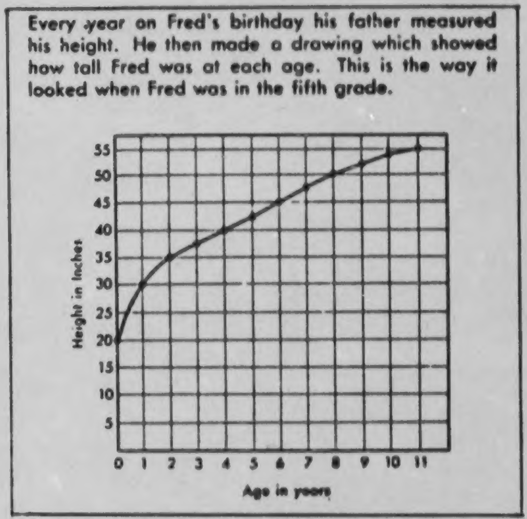
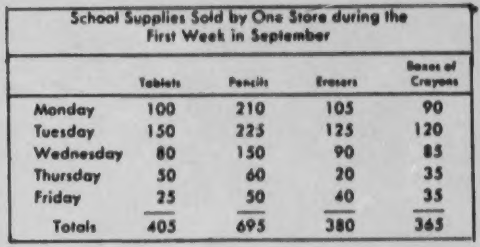

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

Figure C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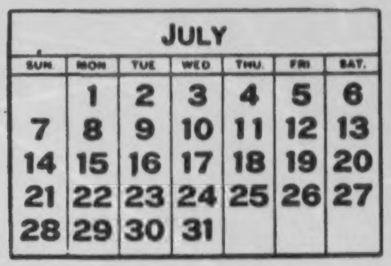

JULY

SUN.	MON.	TUE.	WED.	THU.	FRI.	SAT.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Figure G

QUESTION FORMAT -- TABLE OF CONTENTS

Given a Table of Contents, tell which chapter would contain certain information.

Given a Table of Contents, tell on which page a certain topic is found.

Given a Table of Contents, tell what certain chapters are about.

The part of the book which tells
how the food gets from the farm
to the city begins on what page?
1) 15 3) 34
* 2) 20 4) 52

GRADE 3 SKILLS CLASSIFICATION -- TABLE OF CONTENTS

C- Using the table of contents See Figure H

- Locate chapter by exact topic
  Which chapter tells how farmers plant crops?
- Locate page by exact topic
  On which page does the chapter on Harvesting the Crops begin?
- Locate chapter, first interpreting chapter content
  Which chapter might tell how much milk we should drink each day?
- Locate page, first interpreting chapter content
  The chapter telling how to raise a garden begins on what page?
- Given chapter title, choose topics that might be included in that chapter
  Which of these topics might be included in Chapter 5?

TABLE OF CONTENTS

CHAPTER		PAGE
1	How Farmers Plant Crops	5
2	How the Weather Affects Crops..	11
3	Harvesting the Crops	15
4	The Transportation of Food	20
5	Health Laws and Food	28
6	What the Grocer Does	34
7	The Cost of Food	41
8	Daily Food Needs	46
9	Growing Your Own Food	52

Figure H

Work Study Skills

Knowledge and Use of Reference Materials

QUESTION FORMAT -- ALPHABETIZING

Given a list of four numbered words, choose the one that comes first alphabetically.

1) given
* 2) every
3) first
4) hide

GRADE 3 SKILLS CLASSIFICATION -- ALPHABETIZING

A- Skill in alphabetizing
- To first letter
- To second letter
- By surname
    Irwin, Ralph C.
    Jacobs, Philip
    Kelley, E. G.
- Hyphenated words mixed with words that are not hyphenated
    gate
    good
    good-bye
- A list of words which, when in alphabetical order, are not in their usual sequence

one	August
three	July
two	September

QUESTION FORMAT -- INDEX

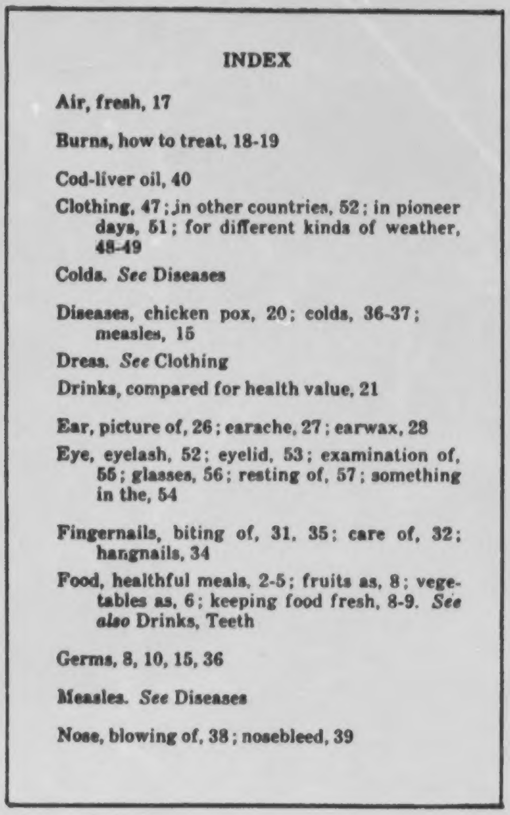
Given an index, tell which page would contain certain information. The last choice is "Not in index."

Ex. 1. What page would tell what to do for a person with a nosebleed?
1) 72 3) 38
* 2) 39 4) Not in index

Ex. 2. What page tells about the harmful effects of drugs?
1) 17 3) 61
2) 21 * 4) Not in index

Students are instructed to decide for themselves what the right answer is rather than checking all the suggested answers against the index so that they will not waste time checking wrong answers. The instructions are as follows:

ALWAYS DECIDE FOR YOURSELF WHAT THE RIGHT ANSWER IS BEFORE YOU LOOK AT THE SUGGESTED ANSWERS. OTHERWISE, YOU WILL WASTE MUCH TIME CHECKING WRONG ANSWERS.



INDEX

Air, fresh, 17

Burns, how to treat, 18-19

Cod-liver oil, 40

Clothing, 47; in other countries, 52; in pioneer days, 51; for different kinds of weather, 48-49

Colds. *See* Diseases

Diseases, chicken pox, 20; colds, 36-37; measles, 15

Dress. *See* Clothing

Drinks, compared for health value, 21

Ear, picture of, 26; earache, 27; earwax, 28

Eye, eyelash, 52; eyelid, 53; examination of, 55; glasses, 56; resting of, 57; something in the, 54

Fingernails, biting of, 31, 35; care of, 32; hangnails, 34

Food, healthful meals, 2-5; fruits as, 8; vegetables as, 6; keeping food fresh, 8-9. *See also* Drinks, Teeth

Germs, 8, 10, 15, 36

Measles. *See* Diseases

Nose, blowing of, 38; nosebleed, 39

GRADE 3 SKILLS CLASSIFICATION -- INDEX

I- Using the index See Figure I

- Locate page number by exact topic
  What page tells about cod-liver oil?
- Locate page number by exact topic, using cross reference
  What page tells about measles?
- Locate page number, first interpreting content
  What page would tell how to clean and trim your fingernails?
- Recognize information not included in index
  See Ex. 2 in QUESTION FORMAT

INDEX

Air, fresh, 17

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Germs, 8, 10, 15, 36

Measles. *See* Diseases

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Figure I

Knowledge and Use of Reference Materials

QUESTION FORMAT -- GENERAL REFERENCE MATERIALS

Answer questions based on knowledge of the use of general reference materials.

Which of these would you use to find the distance from New York to Florida?
1) A book about New York City
2) A road map of Florida
3) A road map of New York
* 4) A map of the United States

GRADE 3 SKILLS CLASSIFICATION -- GENERAL REFERENCE MATERIALS

R- Using general reference materials

R-1 Use of calendar
Which would you use to find the day of the week on which New Year's Day comes this year, a book about holidays or a calendar?

R-2 Use of maps and globes
Which of the following would help you find the best route from Denver Colorado, to Colorado Springs, Colorado?

R-3 Use of textbooks
Where would you look for help in writing a thank-you letter?
What book would tell you about the first Thanksgiving Day?
What book would be most likely to tell you how to measure a room?

R-4 Use of dictionary
What book would help you use the word _________ correctly?
Where would you look for the meaning of the word __________?
Which book would you use to find out whether the word ________ is spelled with one or two _____'s?

R-8 Use of current magazines
Which magazine would you give to a boy interested in cars?
Which would you use to find out what time a television show starts?
Which would you use to find out the words to the Girl Scout Pledge?

R-9 Use of the parts of a book: index, table of contents, etc.
Where in a math book would you find the page number for multiplication facts?
Where in a book on pet care would you find the name of the chapter on pet food?

R-10 Book selection
Which would you say is sure to be a fairy tale, Life on a Farm or The Flying Carpet?
If you wanted to learn something about different kinds of fish, would you choose Fish of North America or Joe, the Dancing Fish?
If you wanted to know how to care for a pet hamster, would you choose Kinds of Living Things or How to Care for Your Pets?

Knowledge and Use of Refere[illegible]aterials

QUESTION FORMAT -- WORD LIST

Given a word list, answer questions about the words on the list.

What is the correct spelling of the word that means "angry"?

1) irrate 3) ireate
* 2) irate 4) irat

Given a word list, decide which of the words on the list has been left out of a sentence.

A band-aid will not _____ to your skin when it is wet.

* 1) adhere 3) desist
2) concede 4) lave

WORD LIST

adhere	to stick; become joined
concede	admit as true
deem	think; believe
desist	stop
irate	angry
jocose	playful; joking
laden	loaded
lave	wash
lucid	easy to understand
mobile	easy to move

GRADE 3 SKILLS CLASSIFICATION -- WORD LIST

W- Using a word list See Figure J

Identify correct spelling of words through use of

- Definition clues
  - What is the correct spelling of the word which means "wash"?
  - What is the correct spelling of the word meaning "easily understood"?
- Draw inferences through use of definition clues
  - Which is most often thought of as "jocose," a fireman or a clown?
  - Which is the most "mobile," a house or a wagon?
  - John was walking home from school ____________ with books.
  - Sue's mother was __________ when she found out that Sue broke the cookie jar.

adhere	to stick; become joined
concede	admit as true
deem	think; believe
desist	stop
irate	angry
jocose	playful; joking
laden	loaded
lave	wash
lucid	easy to understand
mobile	easy to move

Figure J

Mathematics Concepts

QUESTION FORMAT

Given a mathematics exercise, choose the one correct answer from the four choices given.

What number is next larger than 31?
1) 36 3) 30
* 2) 32 4) 40

GRADE 3 SKILLS CLASSIFICATION

C- Currency

C-1 Currency, Reading and writing amounts
How would you write four dollars and twelve cents in figures?
How would you read 53¢?

C-2 Currency, Relative values of coins
Which group of coins is equal in value to a dollar?
Which of these sets of coins has the least value? the most value?

E- Equations, Inequalities, and Number Sentences

Rick needs 40 cents for a toy. He has 8 cents. What number sentence tells how much more money he needs?

F- Fractions

F-1 Fractions, Part of a whole and partitioning of a set
Which figure is divided into fifths? into fourths?
Which shows best that two is one-fourth of eight, XX XX XX XX or XXXX XXXX?

G- Geometry

G-2 Geometry, Recognizing kinds and parts of geometric figures
Which of these figures is a triangle? rectangle? circle? square?
A rectangle has how many more sides than a triangle?

M- Measurement

M-1 Measurement, Quantity
Only three apples are left in the box. How many more need to be added to make a dozen? a half-dozen?

M-2 Measurement, Time
What time is it by this clock?
Jack visited his friend for three weeks. How many days was that?
How many minutes are there from 9 o'clock to 10 o'clock?
How many minutes have passed from the time on the first clock to the time on the second clock?

Mathematics Concepts

M-7 Measurement, Liquid and dry capacity
John had 1 pint of punch. He spilled 1 cup. How much was left?

N- Numeration and Number Systems

N-1 Numeration and Number Systems, Counting
In counting by 3's, which number should you leave out, 3, 6, 9, 11, 12, or 15?
Which is the best way to count the figures below, by 2's or by 3's?
XX XX XX XX XX XX XX

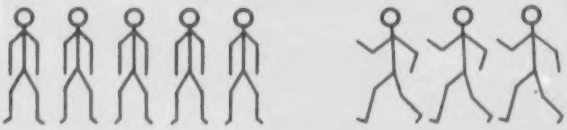
N-2 Numeration and Number Systems, Ordinals
What is the third month of the year?
Betty is in what position in the line?

N-3 Numeration and Number Systems, Place value and expanded notation
What is the meaning of 453 in hundreds, tens, and ones?
How many tens are there in seventy?
How would you write 30 + 22 + 4 as a 3-digit numeral?

N-5 Numeration and Number Systems, Properties of numeration and number systems
How many 4's must be added to 0 to get 20?

N-6 Numeration and Number Systems, Special subsets of the real numbers
Which of these represents an even number? an odd number?

S- Sets
How do the sets below compare?



W- Whole Numbers

W-1 Whole numbers, Reading and writing
How would you read 2806?
How would you write three thousand five hundred nine?

W-2 Whole numbers, Relative values
What whole number is greater than 4 and less than 6?
Helen has more than 15 books. Which number of books could she have, 10, 16, or 6?

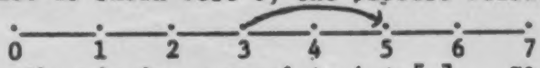
W-5 Whole numbers, Fundamental operations: terms
In which of these exercises is 7 a sum?
What is the next multiple of 2 after 14?

Mathematics Concepts

W-6 Whole numbers, Fundamental operations: number facts

What should replace the [ ] in 3 [ ] 3 = 9?

What fact is shown best by the picture below?



What is the missing numeral in 4 + [ ] = 7?

What should replace the [ ] in the number sentence
(2 + 5) + 6 = [ ] + 6?

W-7 Whole numbers, Fundamental operations: ways to perform

In which of these exercises do you carry a ten, or rename ten ones as a ten?

W-8 Whole numbers, Fundamental operations: estimating results

In the number sentence 200 + [ ] = 450, is the missing number greater than 300? less than 200? between 200 and 300?

Mathematics Problem Solving

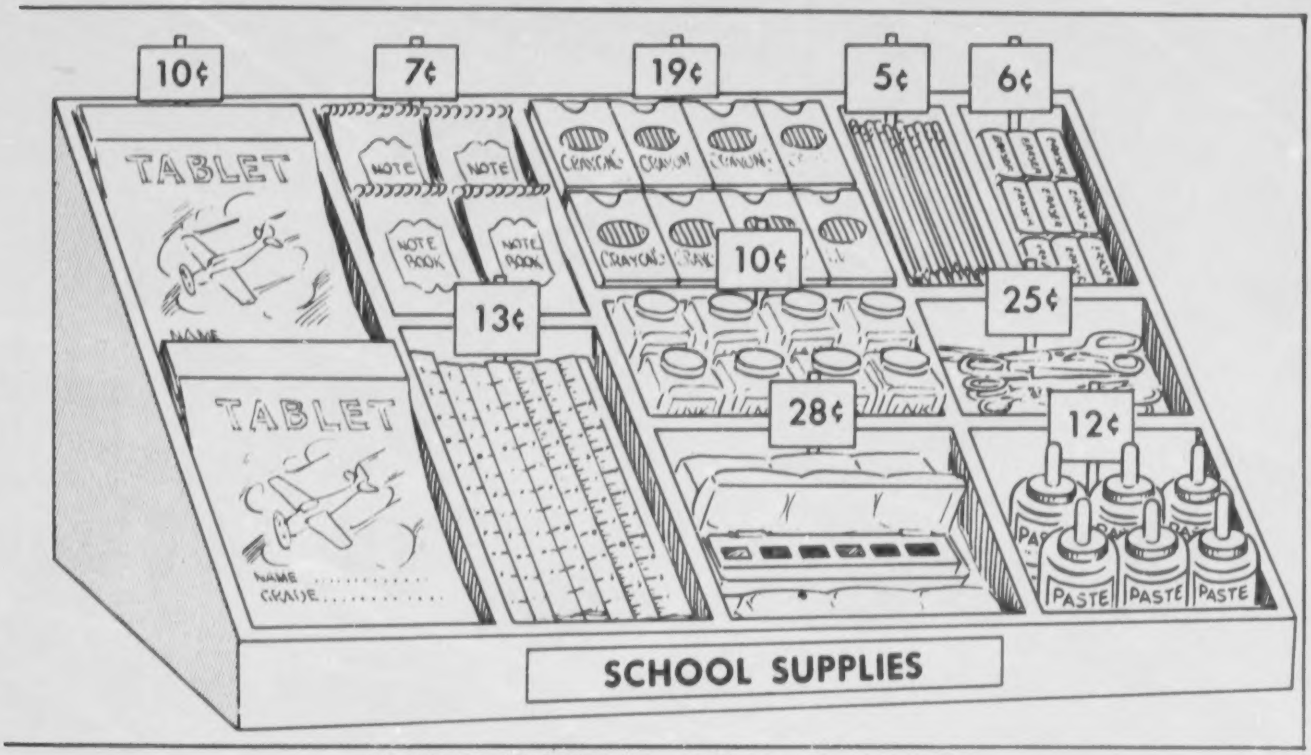
QUESTION FORMAT

Given a mathematics problem, choose the correct answer from the choices given. The last choice says (Not given).

Jerry had 32 racing cars. Tom gave him a box of 6 racing cars. How many racing cars did Jerry have then?

1) 26	3) 40
* 2) 38	4) (Not given)

Given a picture of priced items, answer questions by referring to the prices and then solving the problems. Instructions say, "DO NOT ALLOW FOR SALES TAX."


10¢
7¢
19¢
5¢
6¢
TABLET
NOTE
NOTE BOOK
CRAYONS
10¢
13¢
25¢
28¢
12¢
TABLET
NAME
GRADE
PASTE
SCHOOL SUPPLIES

TO WORK THE PROBLEMS, LOOK AT THE PICTURE ABOVE TO FIND THE PRICES OF THINGS. DO NOT ALLOW FOR SALES TAX.

Ken bought a tablet, paste, and scissors. How much did he pay in all?

1) 45¢	3) 48¢
2) 46¢	* 4) (Not given)

GRADE 3 SKILLS CLASSIFICATION

C- Currency (Money) See Figure K

Ca- Currency (Money), addition
Sally bought a ruler and a pencil. How much did she pay in all?

Cs- Currency (Money), subtraction
Eddie bought an eraser. He gave the cashier 10¢. How much change did he get back.

Cm- Currency (Money), multiplication
How much did Doris pay for 2 boxes of crayons?

Cma- Currency (Money), multiplication and addition
How much did Pat pay for 3 notebooks and a tablet?

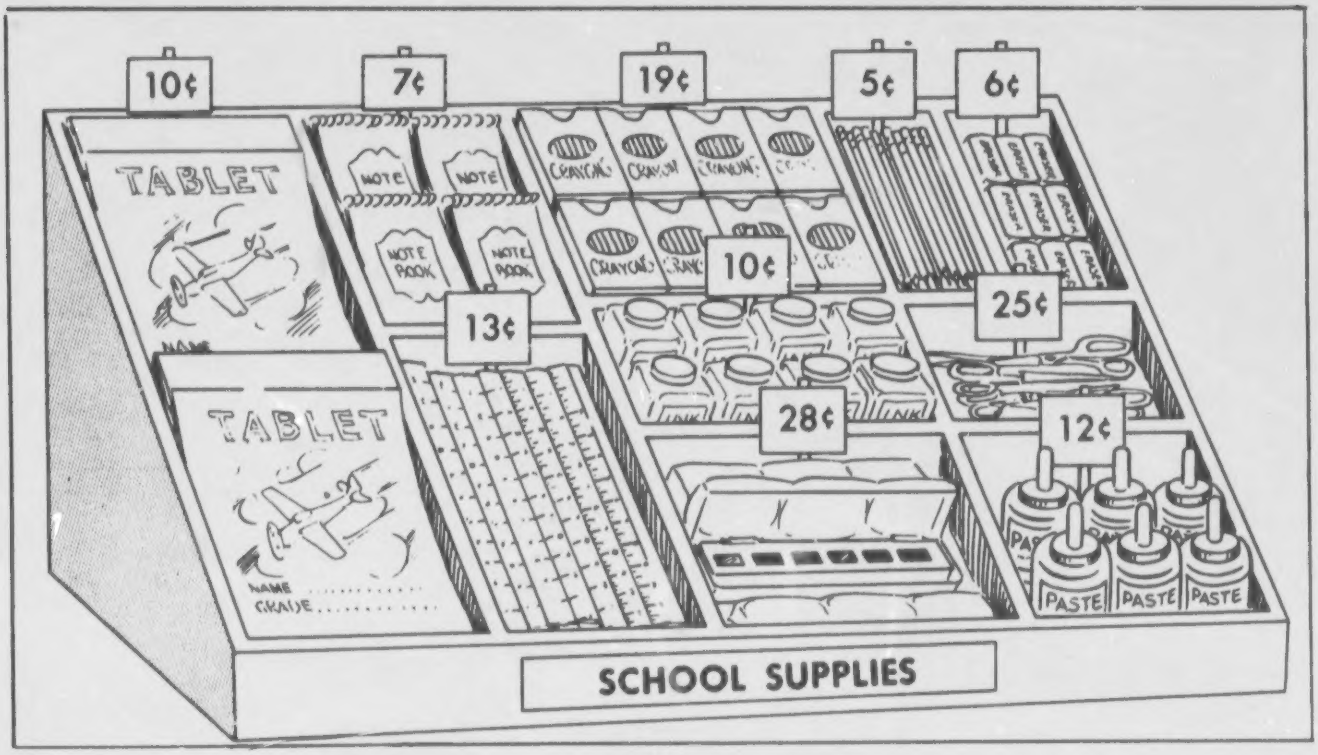

10¢
7¢
19¢
5¢
6¢
TABLET
NOTE BOOK
CRAYONS
ERASER
10¢
13¢
25¢
INK
28¢
12¢
TABLET
NAME
GRADE
PASTE
SCHOOL SUPPLIES

Figure K

W- Whole Numbers

Wa- Whole Numbers, addition
Tony had 14 marbles. Harry gave him a bag of 23 marbles. How many marbles did Tony have then?

Ws- Whole Numbers, subtraction
Bobby had 16 football cards. He traded 4 to Jack for a ball. How many football cards did Bobby have then?

Wn- Whole Numbers, multiplication
Ruth's mother told her to fill 3 trays for ice cubes. Each tray made 12 ice cubes. How many ice cubes would there be in all?

W- Whole Numbers

Wd- Whole Numbers, division
Sue and Tom picked 26 pounds of berries at the berry patch. Each picked the same amount. How much did each child pick?

Wam- Whole Numbers, addition and multiplication
Mike had 2 goldfish, 3 guppies, and 3 angel fish. He paid 6¢ for each fish. How much did he pay in all?

Vocabulary

QUESTION FORMAT

Given a phrase with one word in heavy type, choose one of the four answers that has most nearly the same meaning as the word in heavy type. (Shown below underscored)

A **tall** building
* 1) high
2) wide
3) low
4) new

Broke it **deliberately**
1) by accident
2) into pieces
* 3) on purpose
4) with a loud noise

GRADE 3 SKILLS CLASSIFICATION

This is the only one of the eleven subtests for which no detailed classification of the skills tested is provided. The following general skills are tested:

1. The use of tools involved in word recognition (phonics, context clues, etc.)
2. Knowledge of the meanings of words
3. Sensitivity to fine differences in meanings and judgment in choosing the most appropriate word in a given context

Student is asked to identify a synonymous word or phrase for a given noun, verb, adjective, or adverb such as:

Nouns

Made of **twigs**
The king's **palace**
Hear the **alarm**

Verbs

Stumbled on the steps
Prepare for Thanksgiving
To **avoid** trouble

Adjectives

The **whole** supply
A **savage** tribe
The **spare** room

Adverbs

Speak **distinctly**
They **hastily** agreed
Do it **instantly**

TEACHER GUIDE ON FORMAT AND SKILLS CLASSIFICATION OF THE IOWA TESTS OF BASIC SKILLS (ITBS)

GRADE 5

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INTRODUCTION

This booklet contains information on the ITBS Format and Skills Classification for Grade 5. The purpose of this booklet is not to inform teachers of what the test items are; rather, the format items are given to provide teachers with examples of formats to which they can expose students so that students will not be handicapped by format-related problems. The skills classification list is given -- along with suggested questions to use with students -- to provide teachers with a clear idea of the kinds of cognitive skills required of the students by the tests.

There is no intent to "teach to the test" nor to give "last minute" training to students. Nor is there any intent to "prescribe curriculum." Rather, the booklet familiarizes students with the mechanics involved in test-taking and familiarizes teachers with ITBS skills as they relate to the wider, year-long scope of the MCPS curriculum.

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QUESTION FORMAT AND SKILLS CLASSIFICATION (Grade 5)

Reading Comprehension

QUESTION FORMAT

Given a reading selection, answer questions based on the information given. Selection may be a single paragraph, several paragraphs, several numbered paragraphs (¶), or a poem.

> April is a laundress
> Mixing silver suds
> To rinse the lacy dance frocks
> Of apple-blossom buds.
>
> May Day is the nursemaid
> Who looks the flowers over
> And ties their little bonnets
> On the buttercup and clover.

The poet uses "silver suds" to mean which of these things?

* 1) Raindrops
2) Rain clouds
3) Snowflakes
4) Soap suds

GRADE 5 SKILLS CLASSIFICATION

D (Details) - To recognize and understand stated or implied factual details and relationships

D-1 To recognize and understand important facts and details
Who? When? Where? Which? How many?

D-2 To recognize and understand implied facts and relationships
How? Why? In what way? What ought to happen?

D-3 To deduce the meaning of words or phrases from context
What is meant by the expression _________?
What does the writer mean when he says, "___________"?
What is suggested by the statement ______________?
What does "_________" refer to?

P (Purpose) - To develop skill in discerning the purpose or main idea of a paragraph or selection

P-1 To detect the main purpose of a paragraph or selection
What is the main purpose of the story?
What is the purpose of paragraph 3?
What was the author's purpose in writing the article?

(

P-2 To recognize the main idea or topic of a paragraph or selection
What is the one most important thing to remember from this story?
What is the topic sentence of paragraph 4?
What is the best name for this story?
What was the main goal of the characters in the story?
What does the poet mean to say about _____________?

O (Organization) - To develop ability to organize ideas

O-1 To recognize common elements or parallel topics in incidents or paragraphs
Which paragraphs describe ___________? Which do not?
In paragraph 3, there are two subtopics. What are they?
Which paragraph could be eliminated without changing the main purpose of the story?
Which of these questions is not answered by the article?

O-2 To recognize proper time sequence
What was the last step in ____________?
What happened first?
What is the order in which ___________?
Where in the story would you place a paragraph describing ___________?

E (Evaluation)- To develop skill in evaluating what is read

E-1 To develop generalizations from a selection
Why is "________" a good name for this poem?
Why do you think this is not a true story?
The main character of this story would agree with which of these statements?
Which of these familiar sayings is illustrated by this story?

E-2 To recognize the writer's viewpoint, attitude, or intention
How does the writer feel about _________?
With which of these statements would the author agree? disagree?
Why did the poet choose "________" for the name of this poem?

E-4 To recognize outstanding qualities of style or structure
Why are there quotation marks around the words "________?"
Why are the words __________ in italics?
Do you think this story was written as a newspaper article or a chapter in a book?
To whom is the poet speaking?

Language Skills

Spelling

QUESTION FORMAT

Given four words, pick the one that is spelled incorrectly. A fifth choice is (No mistakes).

Ex. 1	1)	flaming	Ex. 2	1)	newspaper
	2)	popularity		2)	midnight
	3)	assure		3)	satisfied
	* 4)	mashinery		4)	million
	5)	(No mistakes)		* 5)	(No mistakes)

GRADE 5 SKILLS CLASSIFICATION

D- Double letter
  Double letter eliminated (territory-teritory)
  Unnecessary double letter (imitate-immitate)

E- Final e; e before suffix
  Final e (Smoke-smok)
  E before suffix (forget-foreget, pavement-pavment, skate-skateing)

F- f, ft, ph, v substitutions
  (often-ofen, fifty-fivty, fireproof-fireprove, graph-graff)

I- Interchanged letters (belief-beleif)

Spelling

L- L, el, le substitutions
half-hafe, puzzle-puzzel, barrel-barrle

N- No mistakes (See Ex. 2 in QUESTION FORMAT)

O- Omitted letters
pumpkin-pumkin, thumb-thum, library-libary, autumn-autum

P- Plural forms
knives-knifes, axes-axs

S- S, sc, sh, c, ch, t, z substitutions
froze-frose city-sity science-sience
sure-shure rise-rize
stretch-strech invention-invension

V- Vowel substitutions
Single vowels (weapon-weapen)
Diphthongs (courage-curage)

W- W, u, ou, we substitutions
awful-auful
house-howse
touch-tuch

Y- Y, ey, i substitutions
mystery-mistery
heavy-heavey
opinion-opinyon

Language Skills

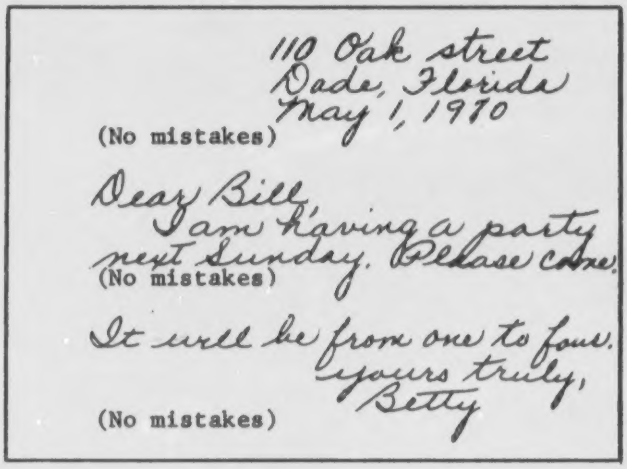
Capitalization

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in capitalization appears. The fourth choice is (No mistakes).

Ex. 1	* 1)	I asked john	Ex. 2	1)	My friend has
	2)	to go to the store		2)	moved to a town
	3)	with me yesterday.		3)	called Woodside.
	4)	(No mistakes)		* 4)	(No mistakes)

Given a handwritten letter, choose the line in which a mistake in capitalization appears.



Ex. 3	* 1)	110 Oak street
	2)	Dade, Florida
	3)	May 1, 1970
	4)	(No mistakes)
Ex. 4	1)	Dear Bill,
	2)	I am having a party
	3)	next Sunday. Please come.
	* 4)	(No mistakes)
Ex. 5	1)	It will be from one to four.
	* 2)	yours truly,
	3)	Betty
	4)	(No mistakes)

GRADE 5 SKILLS CLASSIFICATION

2. Names of persons or animals (Betty, John, Rusty, Puff) and initials of persons (C. R. Johnson, Ann B. Smith)

3. Words indicating family relationship when used specifically and without a possessive pronoun (Uncle Joe, Grandmother Williams)

4. Titles of respect, honor, or rank (Miss Green, Captain Star, Doctor Mann)

5. First word of a sentence

7. In writing letters, the first word and the word which stands in place of the person's name in the salutation (Dear Sir, Dear Madam)

8. In writing letters, the first word of the complimentary close (Sincerely yours, Yours truly, Very truly yours)

9. Certain abbreviations (Jr., Sr.)

10. Days of the week

12. Names of holidays and religious days (Thanksgiving, Easter)

13. Titles of books, music, magazines, etc. (Robin Hood, Boy Scout Handbook, America the Beautiful)

14. Names of cities and states

15. Names of countries and continents

17. Names of streets, avenues, etc.

18. Names of rivers, oceans, canals, mountains, etc.

19. Names of buildings, schools, parks, etc.

20. Names of racial, political or religious bodies (Oriental, Socialist, Christian)

21. Proper adjectives (Chinese food, German boy, Dutch shoes)

22. Names of specific organizations (Red Cross, Salvation Army, Riverside Boys' Club, Western Steel Company)

23. Names of important historical periods or events (Korean War, French Revolution)

24. Specific brand names

You would expect a bike made by Speedo to be built for speed.
Our new shampoo is called Bubble Up, and it really does.
I would like to sell my Royalton typewriter and buy a better brand.

Capitalization

Ov- Over-capitalization

Let's write a letter to that Toy Company and complain about the missing parts.
We are going to the beach this Summer.
The Baseball game starts at 4:00.
Please get Milk at the Store.
I want to be a Doctor when I grow up.

N- No mistakes (See Ex. 2 in QUESTION FORMAT)

Language Skills

Punctuation

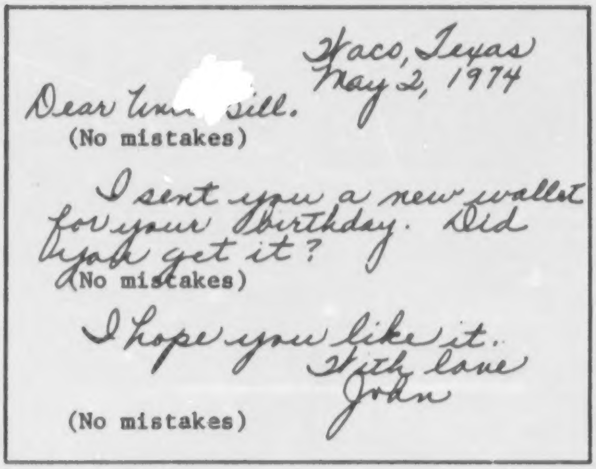
QUESTION FORMATS

Given a sentence cluster, choose the line in which a mistake in punctuation appears. The fourth choice is (No mistakes).

Ex. 1
1) The goat
2) ran through the
* 3) picket fence
4) (No mistakes)

Ex. 2
1) We're going to
2) the pool for a swim.
3) Do you want to come?
* 4) (No mistakes)

Given a handwritten letter, choose the line in which a mistake in punctuation appears.



Ex. 3
1) Waco, Texas
2) May 2, 1974
* 3) Dear Un[illegible]ill.
4) (No mistakes)

Ex. 4
1) I sent you a new wallet
2) for your birthday. Did
3) you get it?
* 4) (No mistakes)

Ex. 5
1) I hope you like it.
* 2) With love
3) John
4) (No mistakes)

Punctuation

GRADE 5 SKILLS CLASSIFICATION

1. Use of period
    1a. Use of period at end of complete declarative sentence
    1b. Use of period with abbreviations
    1c. Use of period with initials standing for name

2. Use of question mark

3. Use of comma
    3a. Use of comma to separate words in a series
    3b. Use of comma to separate names of city and state
    3d. Use of comma at end of complimentary close of a letter (Yours truly,)
    3e. Use of comma at end of salutation in friendly letter (Dear Sue,)
    3j. Use of comma in direct discourse, to separate quotation from rest of sentence
        "Hello, everyone," we called.
        "How do you feel," she asked, "now that you've finished the book?"

4. Use of apostrophe
    4a. Use of apostrophe in contractions (can't, wouldn't)
    4b. Use of apostrophe in forming the possessive of nouns (Sally's hair, doctor's house)
    4c. Use of apostrophe in specific words (Hallowe'en, Ma'am, o'clock)

5. Use of double quotation marks
    5a. Use of double quotation marks, before and after a direct quotation

OV- Over-punctuation
    Ov-1 Use of comma to mark a trivial phrase
        Once we lost our key and had to ask a neighbor, to let us in.
    Ov-3 Use of comma between a word and the modifier immediately preceding it
        That cloud is shaped like a funny, old man.
    Ov-4 Use of apostrophe in plurals of nouns
        The boy's spent three hours mowing the lawn.
    Ov-8 Use of period after unabbreviated words
        Sandy lives on West. Main Street.

N- No Mistakes (See Ex. 2 in QUESTION FORMATS)

Language Skills

Usage

QUESTION FORMAT

Given three numbered sentences, choose the one that has a mistake in usage. The fourth choice is (No mistakes).

Ex. 1
1) We are finished.
2) Our cat ran away.
* 3) It ain't your toy.
4) (No mistakes)

Ex. 2
1) The paper was torn.
2) Without warning, the chain broke.
3) The gifts were wrapped nicely.
* 4) (No mistakes)

GRADE 5 SKILLS CLASSIFICATION

1. Use of pronouns
    - 1a. Use of pronouns, case forms
        - Are us boys invited to the party?
        - Her has a cold.
    - 1d. Use of pronouns, miscellaneous forms commonly confused
        - The girls pulled the wagon all by theirselves.

2. Use of verbs
    - 2a. Use of verbs, the past tense
        - He throwed the ball.
    - 2b. Use of verbs, the past participle
        - We have sang every song in our music book.
    - 2c. Use of verbs, agreement of subject and verb
        - There weren't enough money.
        - They has a pool.
    - 2d. Use of verbs, miscellaneous forms incorrectly used
        - Leave me see that.

3. Use of adjectives and adverbs
    - 3a. Use of adjectives and adverbs, forms commonly confused
        - That milk smells badly.
        - I can dance as good as Terry.
    - 3c. Use of adjectives and adverbs, comparative and superlative forms
        - Ron eats slowlier than anyone in our class.
        - My new doll is the most pretty one on the shelf.
    - 3d. Use of adjectives and adverbs, miscellaneous modifying forms
        - Do you know what boat belongs to Mr. Jones?
        - My new shirt has a tore sleeve.
        - He was burned bad by the fire.

4. Avoidance of double negative
    - I couldn't hardly move my sore arm.

5. Avoidance of redundancies
    - We went swimming, but Joe he couldn't go.
    - I had me a great big ice cream cone.

7. Miscellaneous word forms
    - The mouses ran across the room.

N- No mistakes (See Ex. 2 in QUESTION FORMAT)

Work Study Skills

Map Reading

QUESTION FORMAT

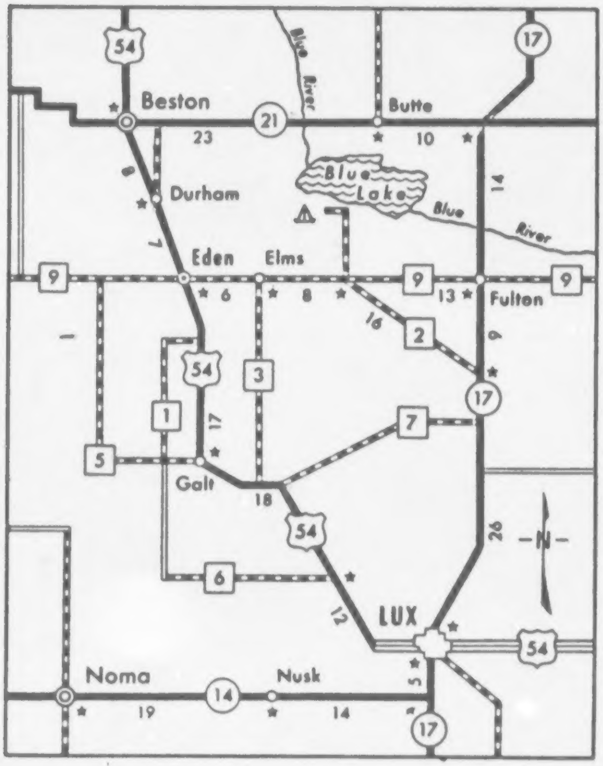
Given a map and key, answer questions about the things shown. Maps may be of city sections, countries, highways and roads, camps, etc.

Which of these cities is closest to Blue Lake?

1) Eden	3) Noma
2) Galt	* 4) Butte

When numerous cities, towns, countries, etc., are shown on a map, the names of the cities and towns are arranged in alphabetical order, beginning near the top of the map, to help students find them quickly. Students are informed of this as follows:

The map on this page is a part of a road map. To help you to find any city or town shown on the map, the names of the cities and towns appear in alphabetical order, beginning near the top.


54
17
Blue River
Beston
21
Butte
23
10
8
Durham
Blue Lake
Blue River
14
7
Eden
Elms
9
9
9
6
8
13
Fulton
16
2
9
1
54
3
1
17
17
7
5
Galt
18
54
26
N
6
12
LUX
54
Noma
14
Nusk
19
14
5
17

Map Reading

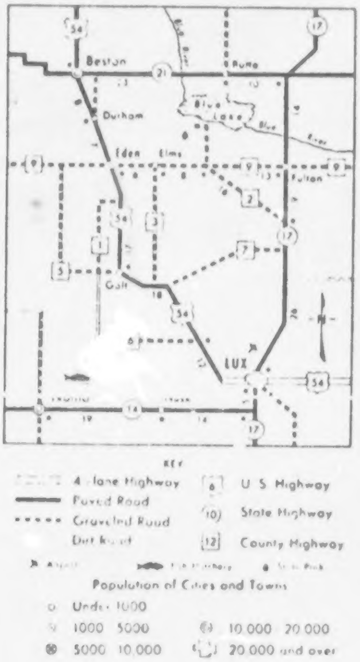
GRADE 5 SKILLS CLASSIFICATION

1. Ability to orient map and determine direction
   - 1a. To determine direction from orientation (compass direction)
     What is directly south of the _____________? directly north?
     The __________ is what direction from the ______________?
     What direction would you travel going from __________ to __________?
   - 1c. To determine direction of river flow or slope of land
     In which direction does the __________ River flow?
     The river running through the city flows in what direction?
     Which river empties into a gulf? an ocean? a bay?
     Which river flows into another river?

2. Ability to locate and/or describe places on maps and globes
   - 2a. Ability to locate and/or describe places on maps and globes through the use of standard map symbols (with or without key)

trees	railroads	state boundaries
highways	rivers	bridges
roads	mountains	cities, towns

   - 2b. Ability to locate and/or describe places on maps and globes through the use of a key


54
17
Beston
21
Noma
Durham
Blue Lake
Blue River
Eden
Elms
9
Fulton
2
3
5
7
Galt
LUX
14
KEY
4-lane Highway
Paved Road
Graveled Road
Dirt Road
U S Highway
State Highway
County Highway
Airport
Fish Hatchery
State Park
Population of Cities and Towns
Under 1000
1000 5000
5000 10,000
10,000 20,000
20,000 and over

What is ⑰ -- a four-lane highway, a paved state highway, or a graveled road?

Near which town is there a state park -- Noma, Elms, or Lux?

How many of the cities shown along Highway 54 have populations of more than 5,000?

   - 2c. Ability to locate and/or describe places on maps and globes, through the use of distance and/or direction

distance: Where might this sign be located?

Eden ← 6 miles
Fulton → 21 miles

direction: If you were traveling west on Route 9 from Elms, which city would you come to first?

distance and direction: What is located 21 miles east of Fulton?
What is 30 miles southeast of Galt?

Map Reading

3. Ability to determine distances

3a. Determining distances on a road map with or without use of key

How many miles from ________ is the nearest interchange with Interstate ________?

Driving from ________ to ________ on Highway ________, how many miles are on four-lane roads?

A man drove from ________ to ________ at an average speed of 30 miles per hour. How long did the trip take?

3b. Determining distances by using a scale of miles

0
100
200
300
MILES

3d. Comparing distances

What is the shortest route to travel from ________ to ________?

How much farther will you drive going from ________ to ________ if you take Routes ________, ________ and ________ instead of Highway ___ and Route ________?

How far is it from ________ to ________ by the shortest route?

4. Ability to determine or trace routes of travel

Which of these highways ends at ________?

The junction of Routes ______ and ________ is at which city?

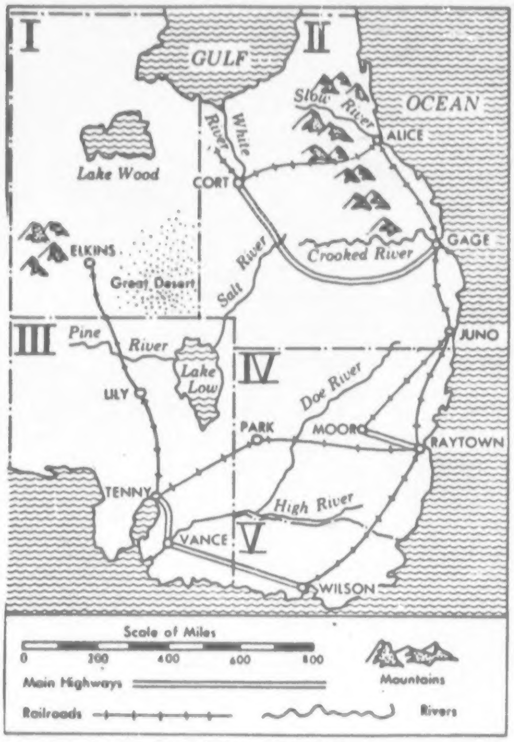
For how many miles do Highways _____ and _______ share the same roadway?

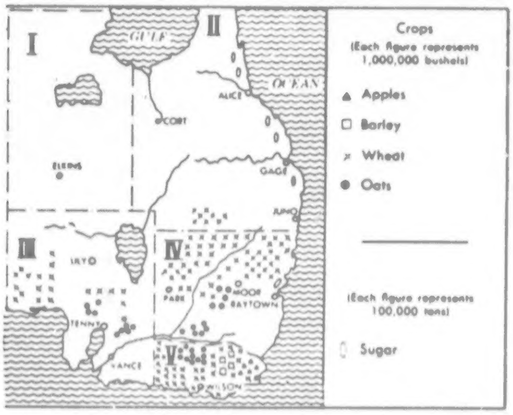
Where does Route ______ become an alternate for Route ______?

Map Reading

6. Ability to read and compare facts from one or more pattern maps

The maps below show a make-believe country. There are five states in this country, numbered I, II, III, IV, and V. The large map at the top shows the cities, rivers, mountains, highways, and railroads. The small map at the bottom shows the crop production. The names of the cities and towns appear in alphabetical order, beginning near the top.


I
II
III
IV
V
GULF
OCEAN
Slow River
White River
ALICE
Lake Wood
CORT
ELKINS
Great Desert
Salt River
Crooked River
GAGE
JUNO
Pine River
Lake Low
LILY
Doe River
PARK
MOOR
RAYTOWN
TENNY
High River
VANCE
WILSON
Scale of Miles
0
200
400
600
800
Main Highways
Railroads
Mountains
Rivers


I
II
III
IV
V
GULF
OCEAN
ALICE
CORT
ELKINS
GAGE
JUNO
LILY
PARK
MOOR
RAYTOWN
TENNY
VANCE
WILSON
Crops
(Each figure represents 1,000,000 bushels)
▲ Apples
☐ Barley
× Wheat
● Oats
(Each figure represents 100,000 tons)
▯ Sugar

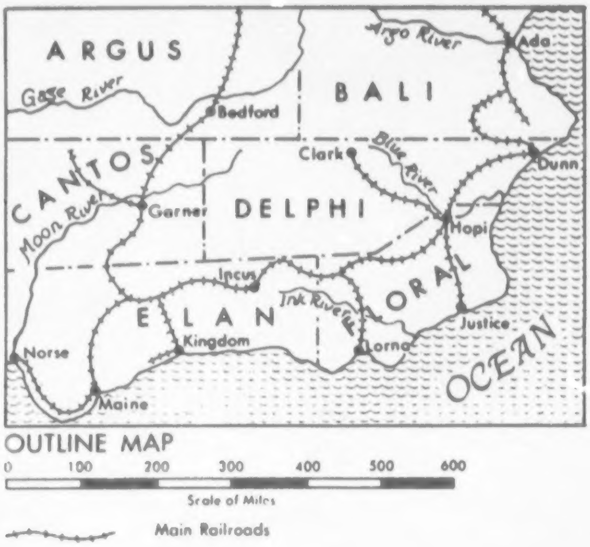
On which railroad trip would you probably see the most grain fields -- Alice to Gage, Raytown to Park, or Elkins to Lily?

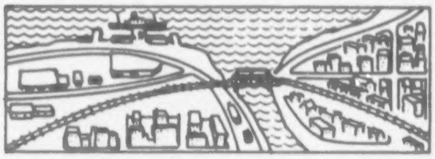
Which is most likely to be the driest section -- Elkins, Cort, or Lily?

What might be the sugar production of State II -- 500 tons; 51,000 tons; or 517,000 tons?

Where are the most apples grown -- in the southeast section of State IV; along the coast of State II, or in the southwest section of State IV?

7. Ability to visualize landscape features


ARGUS
Gage River
Bedford
BALI
Argo River
Ada
CANTOS
Clark
Blue River
Dunn
Moon River
Garner
DELPHI
Hopi
Incus
Ink River
ELAN
ORAL
Justice
Norse
Kingdom
Lorna
Maine
OCEAN
OUTLINE MAP
0
100
200
300
400
500
600
Scale of Miles
Main Railroads



Which city is shown in this air view -- Ada or Dunn?

Why is this not a picture of the city of Garner? of Justice?

8. Ability to infer man's activities or way of living
   8a. Ability to infer man's activities or way of living from outline maps and/or
   8b. Ability to infer man's activities or way of living from pattern maps

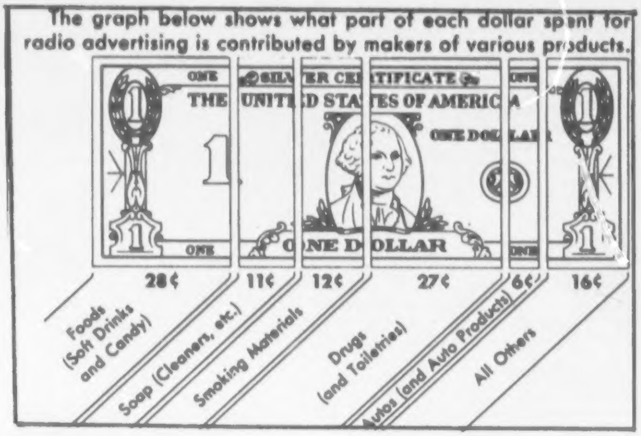
Where on this map would you expect to see a sign showing HORSE CROSSING?
Which is probably the busiest railroad center?
Which of these things would you take with you on a trip to ___________?
Which of these things is most likely to be imported to __________ -- fish or automobiles?
Where on this map would be the best location for a gas station?

Work Study Skills

Reading Graphs and Tables

QUESTION FORMAT

Given a bar graph, line graph, picture graph, circle graph or table, answer questions based on the information provided. One of the choices may be, "The table does not tell," or "One cannot tell from this graph."



The graph below shows what part of each dollar spent for radio advertising is contributed by makers of various products.

Which two product groups contributed more than half of each dollar spent?

1) Autos and drugs	3) Foods and soaps
2) Drugs and soaps	* 4) Drugs and foods

What was the total amount of money spent for radio advertising by makers of drugs and toiletries?

1) $27.00	3) $27,000
2) 27¢	* 4) One cannot tell from the graph

GRADE 5 SKILLS CLASSIFICATION

2. To recognize from subtitles and row or column heading what is shown by each part of a graph

See Figure A

About how many cents out of every dollar go for other than building costs?

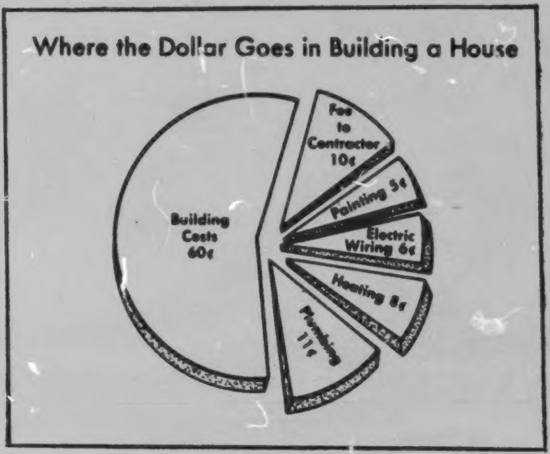


Figure A

See Figure B

A painter would use about how many calories in 2 hours?

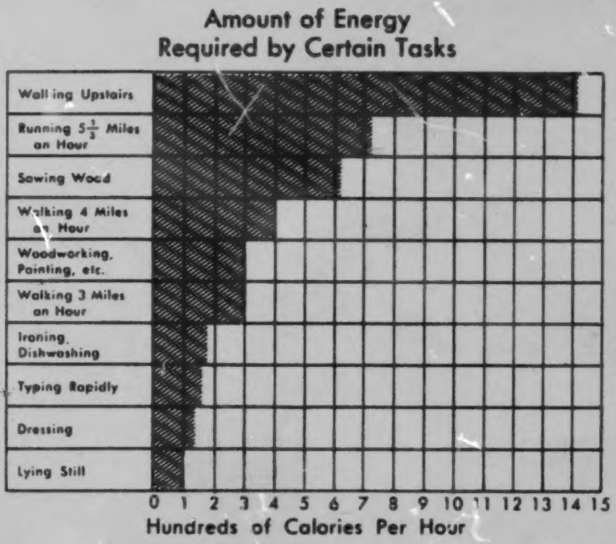


Figure B

See Figure C

How much is the train fare from Salt Lake City to Los Angeles?

One-way Air and Train Passènger Coach Fares
Between Selected U. S. Cities
(To nearest dollar; tax not included)

From	To Denver		To Los Angeles		To Seattle		To Portland	
	Air	Train	Air	Train	Air	Train	Air	Train
Boston	81	63	106	93	106	93	106	93
Chicago	42	27	76	58	76	56	76	56
New York	74	59	96	86	99	88	99	88
Salt Lake City	19	15	29	20	38	28	32	23
Washington, D. C.	70	54	98	79	98	83	98	83

Figure C

3. To read amounts
   3a. To read amounts by using the scale or scales on bar, line, and picture graphs

See Figure B

Typing rapidly requires about how many calories an hour -- about 150, about 1½, or about 100?

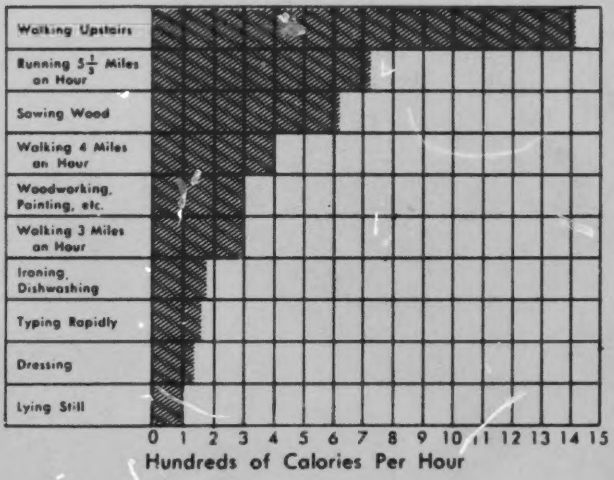

Amount of Energy
Required by Certain Tasks

Figure B

See Figure D

About how tall was Fred when he was in the fifth grade?

How old was Fred when he measured about 40 inches?

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

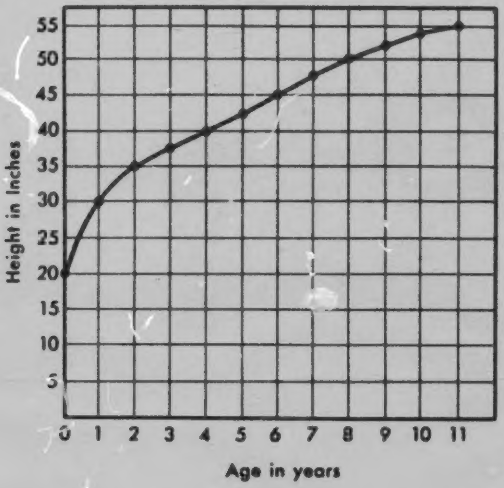


Figure D

See Figure E

It costs a little less than 2¢ to run a 60-watt light bulb for 5 hours. This cost is about the same as for which other appliance?

Cost of Running Certain Electrical Appliances for 5 Hours
(Each circle stands for one cent.)

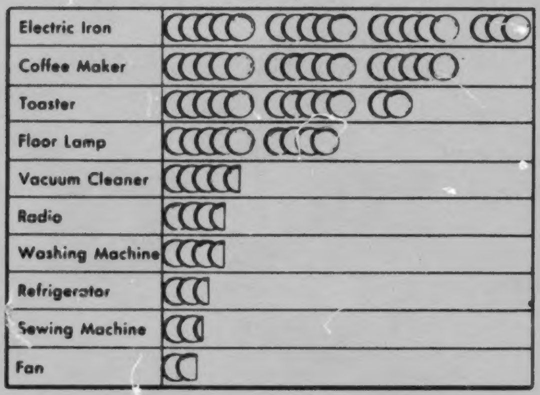


Figure E

See Figure F

How many words per minute was Pete reading at the end of the seventh grade?

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

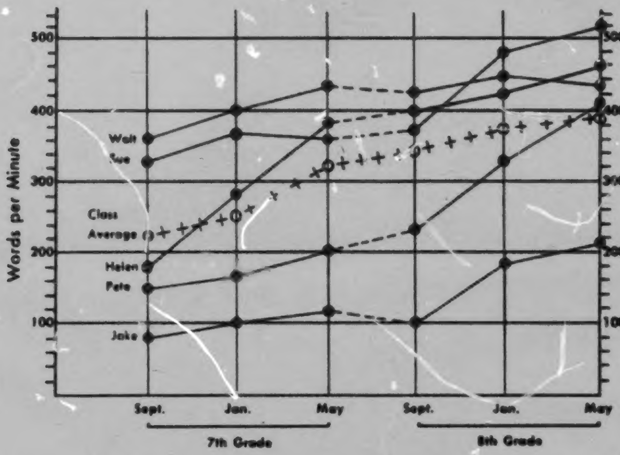


Figure F

3d. To read amounts by using special symbols and a key

See Figure G

In which year were there 40 houses built?

About how many houses were built in 1968 -- 3½, 30, or 35?

Number of Houses Built in Postville Between 1965 and 1970 (*Each picture means 10 houses*)

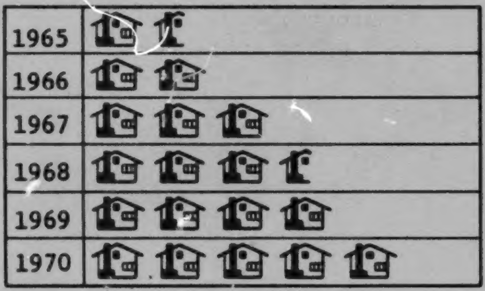


Figure G

4. To compare two or more values read from a graph or table
   4a. To compare two or more values read from a graph or table, by determining rank (greatest, most, fewest, least, first, last)

See Figure H

On which day did Mr. Jackson pay Bill $2.50?

How many bags were filled on Tuesday by both boys together?

Two fifth-grade boys raked and bagged leaves for Mr. Jackson, a neighbor. They earned 25¢ for each bag of leaves. The graph shows the number of bags filled by each boy during one week.

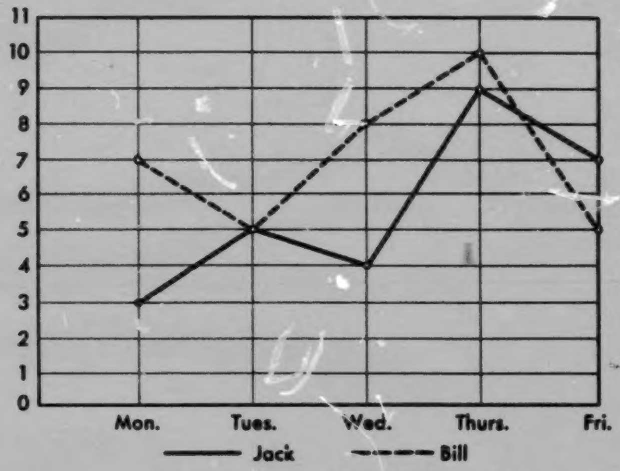


Figure H

See Figure A

What expense in building a house ranks second to building costs?

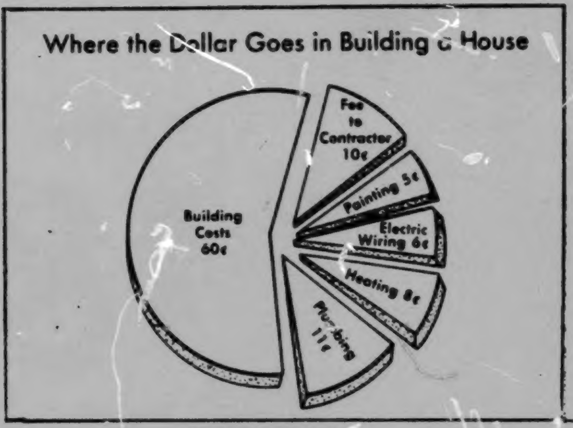


Figure A

See Figure I

Which product group makes the greatest contribution to each dollar spent for advertising?

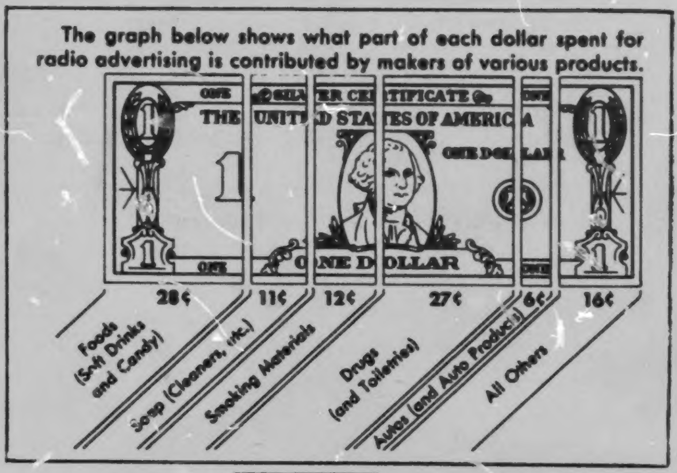


Figure I

See Figure B

According to the graph, which would require the most energy per hour -- ironing, typing, or walking 4 miles an hour?

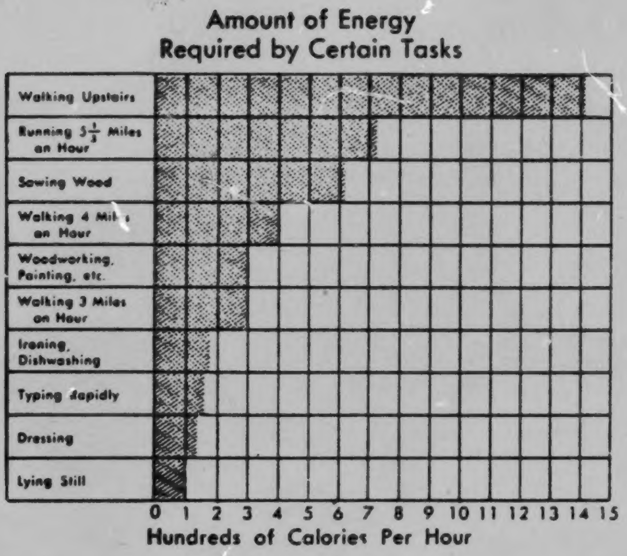


Figure B

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

See Figure F

Who was the fastest reader at the end of the eighth grade?

Of the five pupils shown, who ranked third on the January test in the eighth grade?

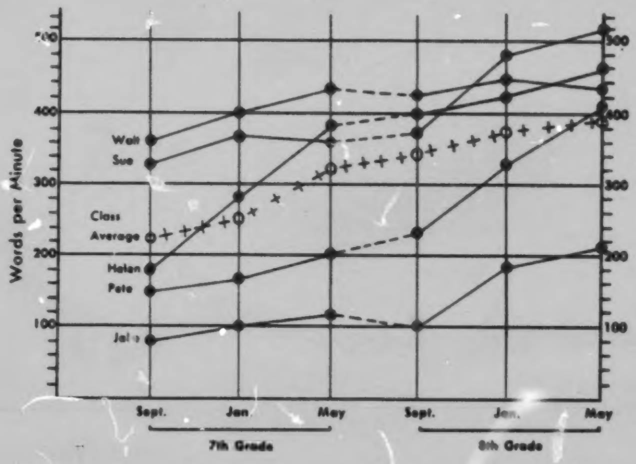


Figure F

4b. To compare two or more values read from a graph or table, by determining differences between amounts (more, less, fewer, greater, equal to, same as)

See Figure G

The number of houses built in 1970 equals the number built in which two years?

How many more houses were built in 1967 than in 1966?

Number of Houses Built in Postville Between 1965 and 1970 *Each picture means 10 houses*)

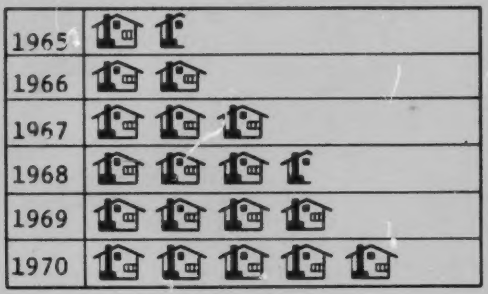


Figure G

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

See Figure D

About how many inches taller was Fred on his second birthday than on his first birthday?

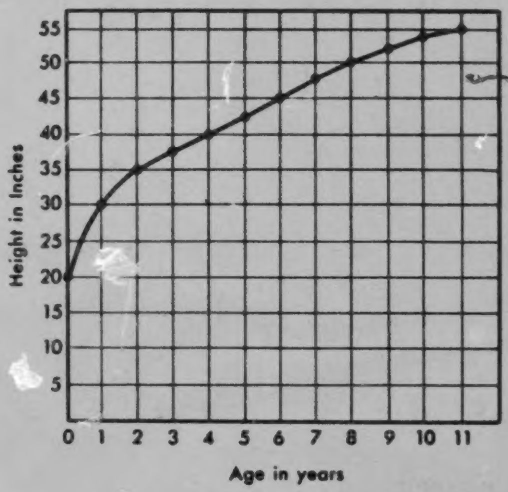


Figure D

Two fifth-grade boys raked and bagged leaves for Mr. Jackson, a neighbor. They earned 25¢ for each bag of leaves. The graph shows the number of bags filled by each boy during one week.

See Figure H

On how many days did Bill earn more than Jack?

On what day did Jack fill more bags than Bill?

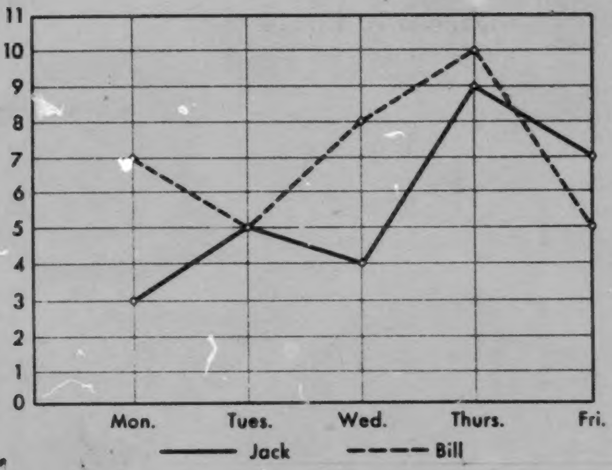


Figure H

See Figure C

From how many of the cities is the fare by air coach the same to Los Angeles, Seattle and Portland?

One-way Air and Train Passenger Coach Fares Between Selected U. S. Cities
(To nearest dollar; tax not included)

From	To Denver		To Los Angeles		To Seattle		To Portland	
	Air	Train	Air	Train	Air	Train	Air	Train
Boston	81	63	106	93	106	93	106	93
Chicago	42	27	76	58	76	56	76	56
New York	74	59	96	86	99	88	99	88
Salt Lake City	19	15	29	20	38	28	32	23
Washington, D. C.	70	54	98	79	98	83	98	83

Figure C

See Figure F

How many of the pupils shown made an improvement on every test?

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

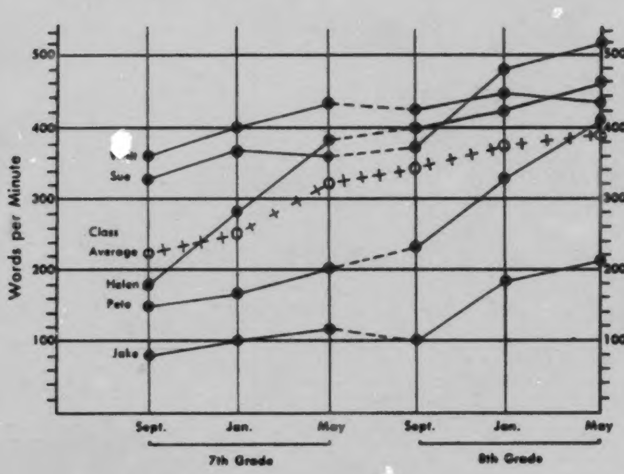


Figure F

4c. To compare two or more values read from a graph or table, by determining how many times greater one amount is than another (half as much, twice as much, what part)

See Figure D

At what age was Fred twice as tall as he was at birth?

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

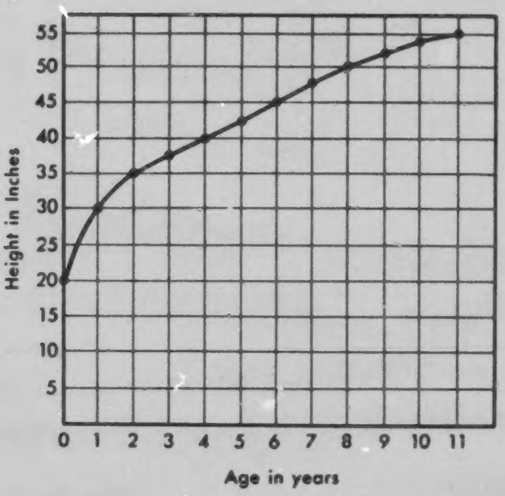


Figure D

See Figure A

The fee to the contractor is about what part of the total cost of building a house -- 1/5, 1/10, or 1/6?

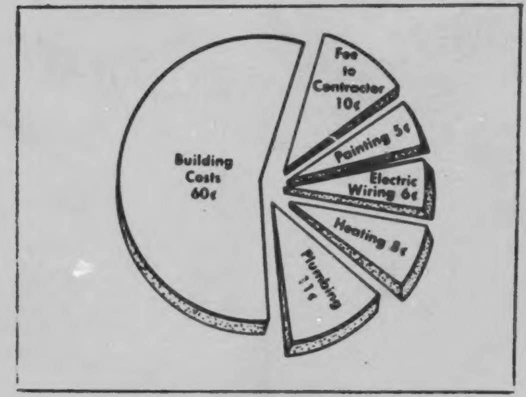


Figure A

See Figure B

Which of the following activities requires about half as much energy as sawing wood -- ironing, typing, or woodworking?

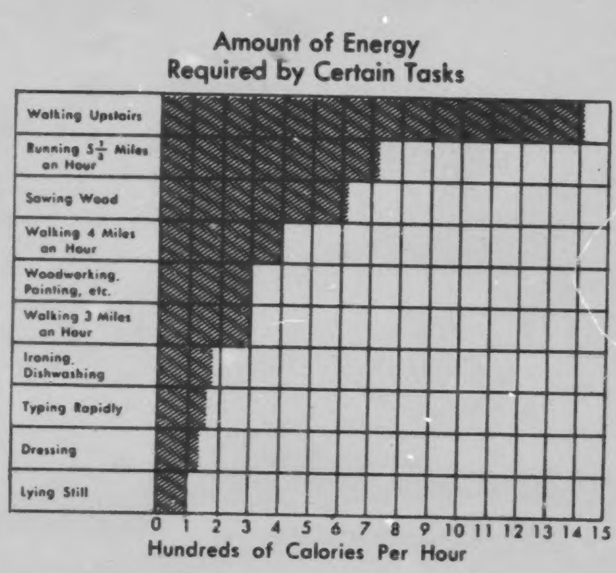


Figure B

See Figure F

When they were tested in the middle of the seventh grade, which student was reading four times as many words per minute as Jake?

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

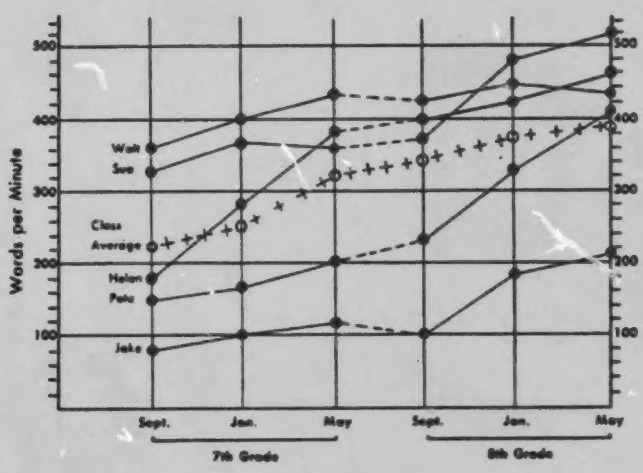


Figure F

5. To determine relative rates or trends

Figure D

During which year did Fred grow fastest?

Every year on Fred's birthday his father measured his height. He then made a drawing which showed how tall Fred was at each age. This is the way it looked when Fred was in the fifth grade.

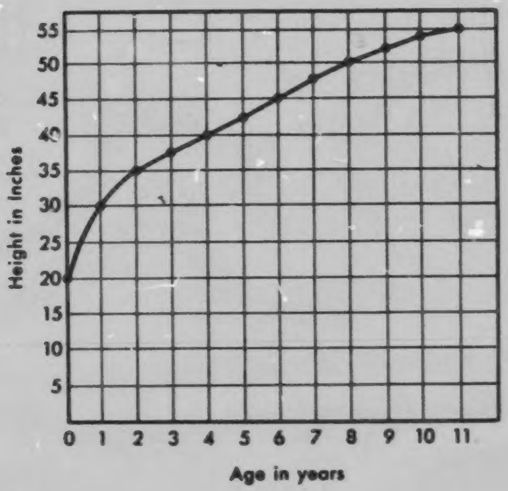


Figure D

Figure G

Which is true of the number of houses built during the five-year period -- that the number increased each year; that the number sometimes increased, sometimes decreased; or that the number increased by the same amount each year?

Number of Houses Built in Postville Between 1965 and 1970 (*Each picture means 10 houses*)

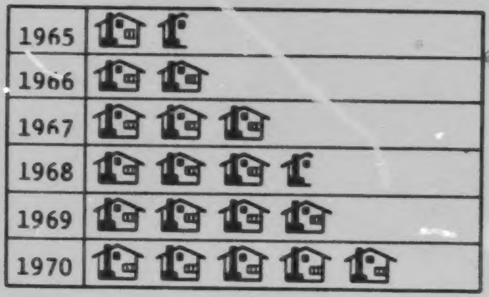


Figure G

See Figure F

Who made the greatest improvement during the seventh grade?

During which months was there the least change in all pupils' reading speed?

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

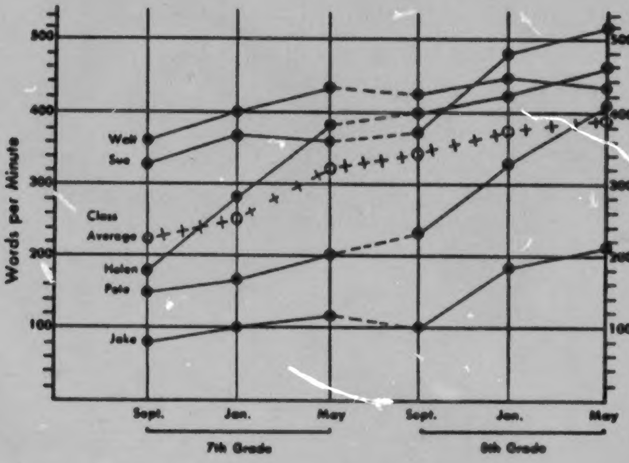


Figure F

6. To determine underlying relationships through correct interpretation of a graph

See Figure E

Which appliance can be operated for the longest time on a dollar's worth of electricity?

What kind of appliances are most expensive to run -- the largest ones, those which supply light, or those which supply heat?

Cost of Running Certain Electrical Appliances for 5 Hours
(Each circle stands for one cent.)

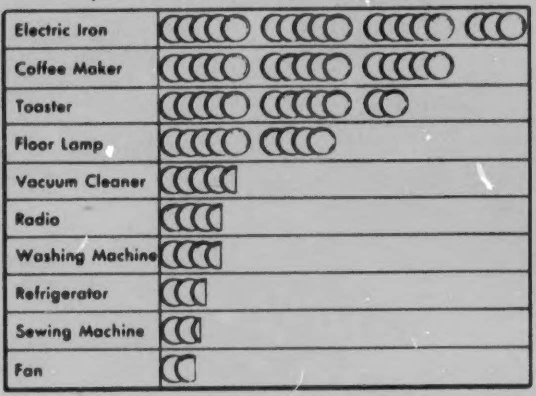


Figure E

See Figure C

Which of these cities is probably farthest from Salt Lake City -- Denver, Seattle, or Portland?

What would the Salt Lake City-Los Angeles round-trip fare be?

One-way Air and Train Passenger Coach Fares Between Selected U. S. Cities
(To nearest dollar; tax not included)

From	To Denver		To Los Angeles		To Seattle		To Portland	
	Air	Train	Air	Train	Air	Train	Air	Train
Boston	81	63	106	93	106	93	106	93
Chicago	42	27	76	58	76	56	76	56
New York	74	59	96	86	99	88	99	88
Salt Lake City	19	15	29	20	38	28	32	23
Washington, D. C.	70	54	98	79	98	83	98	83

Figure C

See Figure B

If a person were to lie absolutely still for 3 hours, would he use up any energy? If so, how much?

Amount of Energy Required by Certain Tasks

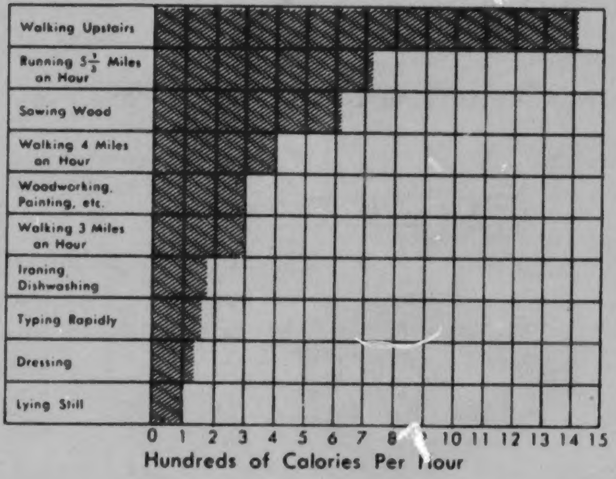


Figure B

Reading Graphs and Tables

See Figure F

How many of the five pupils shown were above the class average at the beginning of the eighth grade?

The pupils in Grade 7 at Lee School started a program to improve their reading speed. Tests were given three times each year for two years. The graph below shows the results for five of the pupils and for the class as a whole.

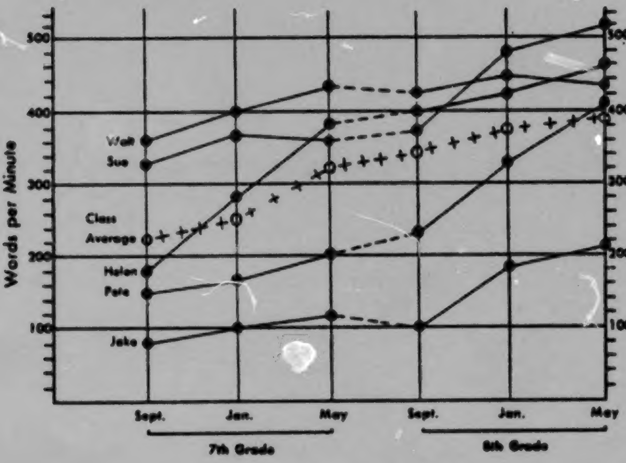


Figure F

7. To grasp the outstanding facts portrayed by a graph or table

What conclusion can be drawn from this graph?
What does this graph suggest about __________?
What is the one most important fact which this graph shows?

Work Study Skills

Knowledge and Use of Reference Materials

QUESTION FORMAT -- ALPHABETIZING

Given a list of four numbered words, choose the one that comes first alphabetically.

1) given
* 2) every
3) first
4) hide

GRADE 5 SKILLS CLASSIFICATION -- ALPHABETIZING

A. Skill in alphabetizing
- To first letter
- To second letter
- To third letter
- To fourth letter
- Proper names
    - Quincy Meat Market
    - Quincy, Neal
    - Quinn, Mark F.
    - Woods, J. B.
    - Woods, John
    - Woods, John L.
    - Saint Vincent
    - sanitize
    - San Francisco
- Compound words
    - restfully
    - restless
    - restlessness
- Hyphenated words mixed with words that are not hyphenated
    - Washington
    - Well-Done Paint Company
    - Winston-Salem

QUESTION FORMAT -- DICTIONARY

Given a sample dictionary and key, answer questions about the dictionary entries.

This part of the test is on the use of the dictionary. Use the sample dictionary and the key below it to answer the exercises on this page.

SAMPLE DICTIONARY

bau'ble (bȯ'bəl), *n.* A trifling piece of finery; a showy but useless thing.

bed'lam (bed'ləm), *n.* Any place or scene of uproar and confusion.

bou·quet' (bō·kā'; bü·kā'), *n.* An arrangement of flowers.

cap'i·tal (kap'ə·təl), *adj.* 1. Punishable with death; as, a *capital* offense. 2. Initial, as *capital* letter. 3. Chief, because the seat of government. 4. Relating to wealth. 5. First-rate; excellent.

cen·ten'ni·al (sen·ten'ē·əl), *adj.* 1. Of or relating to a period of one hundred years, or its completion. 2. Lasting one hundred years. —*n.* A celebration of an event which occurred one hundred years before.

es·chew' (es·chü'), *v.* Avoid; shun; keep away from something distasteful.

gro·tesque' (grō·tesk'), *adj.* Fantastic; queer, odd or unnatural; ridiculous.

guile (gīl), *n.* Crafty deceit; cunning; crafty behavior; sly tricks.

mauve (mōv), *adj.* Delicate purple, violet, or lilac in color.

mo·rose' (mə·rōs'), *adj.* Gloomy; sullen.

or'i·fice (ȯr'ə·fis), *n.* A mouth; opening; hole.

queue (kyü), *n.* 1. Pigtail; braid of hair hanging down the back. 2. Line of persons, automobiles, etc.

se·clude' (sē·klüd'), *v.* Keep apart from company; protect or shield by shutting off from others.

su'mac or **su'mach** (sü'mak), *n.* A shrub or small tree with leaves that turn scarlet in autumn and long clusters of red berries.

AIDS TO USING THIS SAMPLE DICTIONARY:

1. **Key words for pronunciation:**

a add
ā age
ä calm
e end
ē he
ė fern
i ill
ī ice

o hot
ō old
ȯ order
oi toil
u cup
u̇ pull
ü rule

ə represents:
a in about
a in final
e in below
e in silent
o in pardon
u in subtract

2. **Syllables** are indicated by a dot (·) or by the light (') or heavy (') accent mark.
3. **Abbreviations used:** *adj.*, adjective; *adv.*, adverb; *n.*, noun; *pl.*, plural; *v.*, verb.

A shiny pin in the shape of an Indian on a horse might be called which of these?

1) queue
2) guile
3) sumac
* 4) bauble

In which of these sentences is the word guile best used?

1) The girl kept her guile in a little box.
* 2) Jimmy used guile to get money for the show.
3) Ann was the only one who had enough guile to ring the bell.
4) Leah took great guile in her new bike.

GRADE 5 SKILLS CLASSIFICATION -- DICTIONARY

D- Using the Dictionary

D-1 Using the dictionary, spelling
Which is the correct spelling of the word that means ________?

D-2 Using the dictionary, pronunciation
Which word is pronounced most nearly the way it is spelled?
Which word rhymes with ________?
The accent in ________ is on which syllable?
Which is the silent letter in the word ________?
What is the preferred pronunciation of ________?

D-3 Using the dictionary, syllabication
Which word has three syllables?
How many syllables in the word ________?

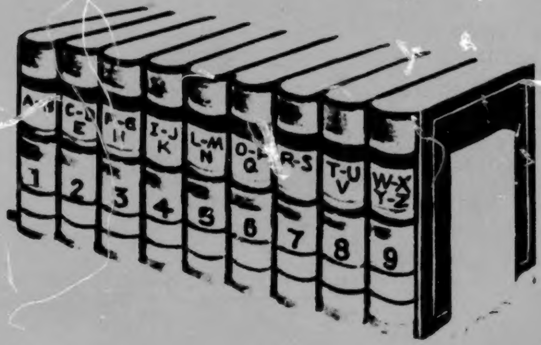
D-5 Using the dictionary, parts of speech
Which word is an adjective? verb? noun?
What part of speech is ________?
Which word can be used both as an adjective and as a noun?
Which word can be three different parts of speech?

D-6 Using the dictionary, meaning
In the following sentence, ______ is used according to which dictionary definition -- Number 1, Number 3, or Number 5?
In which of these sentences is the word ________ best used?
Which is most likely to be described as ________?
________ comes closest in meaning to which word?

QUESTION FORMAT -- ENCYCLOPEDIA

Given a picture of a set of volumes of an encyclopedia, answer questions about locating topics in those volumes.

Below is a picture of a set of volumes of an encyclopedia. Each volume contains information about topics which begin with the letters shown on the back. Use the picture to answer the exercises below.



The United States produces about 10% of the world supply of wool. If you wanted to know how U. S. wool compares in quality with Australian wool, where should you look?

1) Volume 1
2) Volume 2
3) Volume 8
* 4) Volume 9

GRADE 5 SKILLS CLASSIFICATION -- ENCYCLOPEDIA

E- Use of encyclopedia

- Volume selection
  Which volume would tell you about __________?
  Which volume would discuss the use of __________?
  In which volume would you look to compare _______ and ___________?
  Which volume would describe _______, _________, _________, and other types of _________?
  If Volume _____ did not have the information you wanted about _______, in which volume would you look next?

Knowledge and Use of Reference Materials

QUESTION FORMAT -- INDEX

Given an index, tell which page would contain certain information. The last choice is "Not in index."

Ex. 1. What page would tell what to do for a person with a nosebleed?
1) 12 3) 38
* 2) 39 4) Not in index

Ex. 2 What page tells about the harmful effects of drugs?
1) 17 3) 61
2) 21 * 4) Not in index

Students are instructed to decide for themselves what the right answer is rather than checking all the suggested answers against the index so that they will not waste time checking wrong answers. The instructions are as follows:

ALWAYS DECIDE FOR YOURSELF WHAT THE RIGHT ANSWER IS BEFORE YOU LOOK AT THE SUGGESTED ANSWERS. OTHERWISE, YOU WILL WASTE MUCH TIME CHECKING WRONG ANSWERS.

INDEX

Air, fresh, 17

Burns, how to treat, 18-19

Cod-liver oil, 40

Clothing, 47; in other countries, 52; in pioneer days, 51; for different kinds of weather, 48-49

Colds. *See* **Diseases**

Diseases, chicken pox, 20; colds, 36-37; measles, 15

Dress. *See* **Clothing**

Drinks, compared for health value, 21

Ear, picture of, 26; earache, 27; earwax, 28

Eye, eyelash, 52; eyelid, 53; examination of, 55; glasses, 56; resting of, 57; something in the, 54

Fingernails, biting of, 31, 35; care of, 32; hangnails, 34

Food, healthful meals, 2-5; fruits as, 8; vegetables as, 6; keeping food fresh, 8-9. *See also* **Drinks, Teeth**

Germs, 8, 10, 15, 36

Measles. *See* **Diseases**

Nose, blowing of, 38; nosebleed, 39

GRADE 5 SKILLS CLASSIFICATION -- INDEX

I- Using the index [See Figure J]

- Locate page number by exact topic
    What page tells about cod-liver oil?
- Locate page number by exact topic, using cross reference
    What page tells about measles?
- Locate page number, first interpreting content
    What page would tell how to clean and trim your fingernails?
- Recognize information not included in index
    See Ex. 2 in QUESTION FORMAT

INDEX

Air, fresh, 17

Burns, how to treat, 18-19

Cod-liver oil, 40

Clothing, 47; in other countries, 52; in pioneer days, 51; for different kinds of weather, 48-49

Colds. *See* Diseases

Diseases, chicken pox, 20; colds, 36-37; measles, 15

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Germs, 8, 10, 15, 36

Measles. *See* Diseases

Nose, blowing of, 38; nosebleed, 39

Figure J

QUESTION FORMAT -- GENERAL REFERENCE MATERIALS

Answer questions based on knowledge of the use of general reference materials.

Which of these would you use to find the
distance from New York to Florida?
1) A book about New York City
2) A road map of Florida
3) A road map of New York
* 4) A map of the United States

GRADE 5 SKILLS CLASSIFICATION -- GENERAL REFERENCE MATERIALS

R- Using general reference materials

R-2 Use of maps and globes
Which would tell you whether Washington, D. C., is north or south of Korea -- a map of North America, a globe, or an encyclopedia?
What would you use to find the best route from Denver, Colorado, to Colorado Springs, Colorado?

R-3 Use of textbooks
Which would give you the most help in reading charts and graphs -- a dictionary, a geography book, or an arithmetic book?
What type of book would tell you about the first Thanksgiving Day -- geography, history, or language?
Where would you look for help in writing a business letter?

R-4 Use of dictionary
If you wanted to learn how to use the word _______ in a sentence, which would help you -- a spelling book, dictionary, or The World Almanac?
What book would tell you how the word ______ should be divided at the end of a line?
Which book would tell you the difference between a hurricane and a tornado -- a weather map, National Geographic, or a dictionary?

R-5 Use of atlases
If you wanted to find out where the largest rivers of Canada are located, which would you use -- an encyclopedia, the National Geographic, or an atlas?
In which of these might you most quickly find the states which are on the United States-Mexico border -- a map of Mexico, an atlas, or The World Almanac?

R-6 Use of encyclopedias
Where would you be most likely to find something about the childhood of President George Washington -- in a dictionary, in an encyclopedia, in a book called American History?
Where would you look to find the titles of songs written by Stephen Foster -- in an atlas, in a song book, or in an encyclopedia?
Which would tell you about Henry Ford's contributions to the automobile industry -- an encyclopedia, Automobile Report Guide, or Popular Science Monthly?

R-7 Use of special references such as Who's Who in America, The World Almanac, etc.

Which would contain a list of the names of all the presidents of the United States -- The World Almanac, an atlas, or a dictionary?

If you wanted to find out who wrote "The Elf and the Dormouse," which should you use -- Handbook of Nature Study, Best Loved American Poems, or a language book?

If you need a plumber quickly and do not know of any, what is the best thing to use -- a newspaper, the telephone directory, or The World Almanac?

R-8 Use of current magazines

Which magazine would be most likely to contain pictures of recent news events -- National Geographic, Newsweek, or Reader's Digest?

Which magazine would you give to a boy interested in building model cars -- Popular Science Monthly, Automobile Repair Guide, or Hobbies and Arts?

Which would you use to find out what time a television show starts?

R-10 Book selection

Which would you expect to be an autobiography?

Where would you find the name of the person who said, "A penny saved is a penny earned" -- in Famous Sayings of Famous Men, in Money Talks, or in a collection of poems?

If you wanted to find out how to prepare Spanish rice for dinner, where would you look -- in Grains of Spain, Grain Farming, or Better Homes Cook Book?

Which of these might tell you how to grow raspberries -- Gardening for Fun and Profit, History of Agriculture or Control of Garden Pests?

Mathematics Concepts

QUESTION FORMAT

Given a mathematics exercise, choose the one correct answer from the four choices given.

What is the smallest number that can be written by using the figures 7, 2, 4, and 1 once each?

* 1) 1247 3) 1274
2) 1724 4) 1427

GRADE 5 SKILLS CLASSIFICATION

E- Equations, Inequalities and Number Sentences

In which of these does n not equal 0?

$5 \times 0 = n$ $0 \div 5 = n$ $0 + 5 = n$

What could replace the △ and □ in the number sentence $25 = (\triangle \times 4) + \square$?

What is the greatest whole number that makes $\square \times 3 < 17$ a true number sentence?

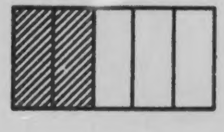
Tom has 45 baseball cards. He is putting them into packs of 5. Which number sentence can be used to find the number of packs he will have?

$5 + n = 45$ $45 \div 5 = n$ $45 \times 5 = n$

F- Fractions

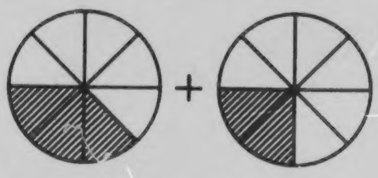
F-1 Fractions, part of whole and partitioning of a set

What part of this picture is shaded -- 1/12, 1/3, or 1/4?



Which of these addition exercises is represented by the shaded parts of the diagrams below?

3/8 + 1/4; 5/8 + 3/4; or 3/4 + 3/4



F-2 Fractions, relative values

Which group of fractions is arranged in order of size from largest to smallest?

1/2, 1/5, 1/3; 1/3, 1/5, 1/8; or 1/6, 1/4, 1/2

Mathematics Concepts

These numbers show how Jack counted by fourths. In which group did he leave out a number?

1/4, 1/2. 3/4;   1, 1 1/2, 1 3/4;   or   2 3/4, 3, 3 1/4

Which fraction is greater than ________ but less than ________?

F-3 Fractions, equivalents

Which subtraction exercise is worked correctly?

$$\begin{array}{r} 3/8 \\ -\ 1/4 \\ \hline 2/4 = 1/2 \end{array} \qquad \begin{array}{r} 5/6 = 5/6 \\ -\ 2/3 = 4/6 \\ \hline 1/6 \end{array} \qquad \begin{array}{r} 3/4 = 3/4 \\ -\ 1/2 = 2/4 \\ \hline 1/8 \end{array}$$

Which fraction is expressed in lowest terms or simplest form?

Which of these pairs of fractions has ______ for a common denominator?

F-4 Fractions, terms (proper fraction, improper fraction, numerator, denominator, etc.)

F-5 Fractions, fundamental operations: ways to perform

Which of these addition exercises is worked correctly?

2/7 + 3/7 = 5/14;   1/5 + 2/5 = 3/5;   1/3 + 1/3 = 1/6

Which of these is a way to find 1/4 of 16:

16 x 4;   16 ÷ 4,   16 - 4

F-6 Fractions, estimating results

What is the best estimate of 1 3/4 + 2 7/8 -- less than 5, greater than 5, or equal to 5?

G- Geometry

G-1 Geometry, points, lines and planes
Which lines are parallel?
Which number line shows the set of whole numbers greater than 6 and less than 8?
How many points are determined by the intersections of lines a, b, and c?

G-2 Geometry, Recognizing kinds and parts of geometric figures
Which figure is a triangle? rectangle?
A rectangle has how many more sides than a triangle?

G-4 Geometry, dimensions, perimeters, and areas of polygons
Which figure has 4 right angles?
Which figure is not a parallelogram?
What is the perimeter of the figure?

Mathematics Concepts

G-7 Geometry, parts and areas of circles

Which of the line segments is the diameter? the radius?

M- Measurement

M-3 Measurement, temperature

What temperature does the thermometer show?

M-4 Measurement, weight

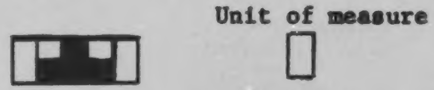
How does a foreign car weighing 1600 pounds compare with a ton?
How many 8-ounce packages of cheese are needed to make one pound?
What is the weight, in ounces, of a candy bar weighing 1/4 pound?
Which is the greatest weight -- 1 lb. 10 oz.; 1 1/4 lb.; or 14 oz.?

M-5 Measurement, length

Which of the four measurements given is the greatest -- 1 yd. 10 in.; 4 ft. 3 in.; or 4 1/2 ft.?
How long is the line shown above the ruler?
Which is the way to find the number of inches in 3 feet?
How does a piece of material 44 inches wide compare with material one yard wide?

M-6 Measurement, area and volume

What is the area of the shaded part of the figure below -- 2, 3, 4, or 5?



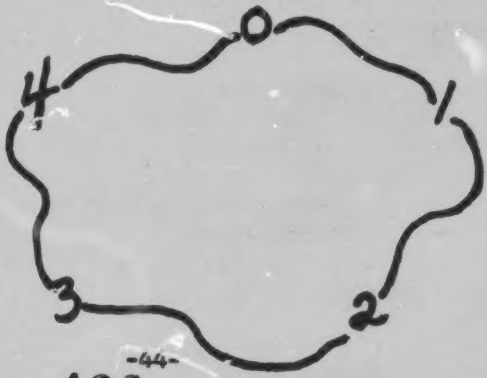
N- Numeration and Number Systems

N-3 Numeration and Number Systems, place value and expanded notation

What is another name for 6 hundred, 3 tens, and 14 ones?
How much would the number 438,625 be reduced by changing the 8 to a 7?
What should replace the ☐ in the number sentence 57,824=50,000+7,000+ ☐ +20+4?

N-4 Numeration and Number Systems, numeration systems other than base ten

Below is a route on a map game. It takes 5 moves to go around once. If you start at 0, where will you be after 7 moves?



N-5 Numeration and Number Systems, properties of numeration and number systems

What should replace the $\square$ to make $(5 + 4) + 2 = 5 + \square$ a true number sentence?
What should replace the $\square$ in the number sentence $(7 - 5) + 3 = 3 + (\square - 5)$?
What should replace the $\square$ to make $(75 \times 25) \div \square = 75$ a true number sentence?
What should replace the $\square$ in the number sentence $6 \times (3 \times 7) = 18 \times \square$?

R- Ratio and Proportion

The scale for a house plan is 1 inch = 2 feet. How many feet are represented by a 6-inch line?
John can jog 1 mile in 15 minutes. At that rate, how far can he jog in one hour?

S- Sets

How many elements are in the set shown? $\{X, 0, \square\}$

Which set below has the same number of elements as the set shown above?

$\{0,0,0,0\}$ $\{\Delta, x, \square\}$ $\{x, 0, \square, \square\}$

W- Whole Numbers

W-3 Whole Numbers, rounding

If 183 is rounded off to the nearest ten, what is the resulting number?

W-5 Whole Numbers, fundamental operations: terms (factors, members of sets, dividends, product, partial product, quotient, etc.)

One factor of 10 is 2. What is the other factor?
Which is the quotient in this exercise?

W-6 Whole Numbers, fundamental operations: number facts

What numeral will make the number sentence $\square \times \square = 49$ true?
If a whole number is divided by 6, what is the greatest value a remainder may have?
How many 4's are there in three 8's?
What number fact is shown by the number line?
Which numbers in the set are divisible by neither _____ nor ______?

Mathematics Problem Solving

QUESTION FORMAT

Given a mathematics problem, choose the correct answer from the choices given. The last choice says (Not given).

Mr. Rogers estimated that his 359 apple trees would yield 6 bushels of fruit per tree. Based on this estimate, what would be the total number of bushels in his apple crop?

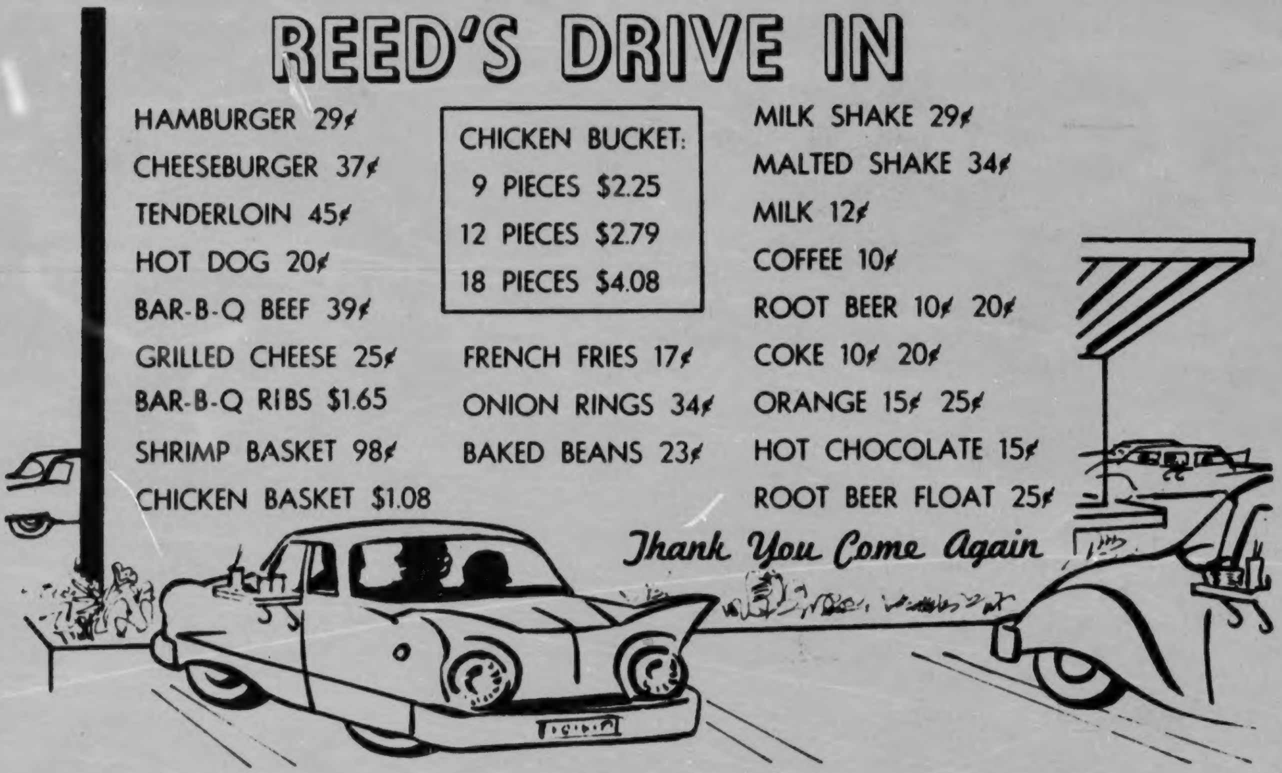
1) 16
2) 2144
* 3) 2154
4) (Not given)

One day Mr. Rice sold 1513 quarts of strawberries to 89 customers. What was the average number of quarts bought by each customer that day?

1) 16
2) 17
3) 18
* 4) (Not given)

Problem Solving

Given a picture of priced items, answer questions by referring to the prices and then solving the problems. Instructions say, "Do not allow for sales tax."



REED'S DRIVE IN

HAMBURGER	29¢
CHEESEBURGER	37¢
TENDERLOIN	45¢
HOT DOG	20¢
BAR-B-Q BEEF	39¢
GRILLED CHEESE	25¢
BAR-B-Q RIBS	$1.65
SHRIMP BASKET	98¢
CHICKEN BASKET	$1.08
CHICKEN BUCKET:	
9 PIECES	$2.25
12 PIECES	$2.79
18 PIECES	$4.08
FRENCH FRIES	17¢
ONION RINGS	34¢
BAKED BEANS	23¢
MILK SHAKE	29¢
MALTED SHAKE	34¢
MILK	12¢
COFFEE	10¢
ROOT BEER	10¢ 20¢
COKE	10¢ 20¢
ORANGE	15¢ 25¢
HOT CHOCOLATE	15¢
ROOT BEER FLOAT	25¢

Thank You Come Again

To work the problems, look at the picture above to find the prices of things. Do not allow for sales tax.

How much did it cost to buy Bar-B-Q ribs and a milk shake?

* 1) $1.94
2) $1.65
3) 69¢
4) (Not given)

GRADE 5 SKILLS CLASSIFICATION

C- Currency (Money)

Cas- Currency (Money) addition, subtraction

Gene bought a model airplane engine and an F-51 Mustang model plane on sale, both for only $4.98. The regular prices were $4.95 for the engine and $1.95 for the plane. How much did Gene save by buying the model engine and plane at the sale price?

Cm- Currency (Money) multiplication

Students sold 179 tickets for 35¢ each during a carnival ticket sale. How much did they collect in all for these tickets?

Cma- Currency (Money) multiplication, addition

The Jackson family took an auto trip through Rocky Mountain National Park. They rented a car for $18.00 plus 9¢ per mile for the 232 miles they drove. How much was the total car rental for the trip?

Cam- Currency (Money) addition, multiplication

Mrs. Hamilton bought 5 postcards for herself and one each for the 11 children in her group. How much did she spend if each postcard cost 7¢?

Cd- Currency (Money) division

Jerry paid $2.04 for a roll of color film. The cost included developing the film and making one print for each of the 12 pictures. How much did each color picture cost to develop and print?

Cs- Currency (Money) subtraction

The total amount received by students from the sale of symphony tickets was $80.15. The expenses were $39.18. How much did the students make on the symphony tickets after the expenses were paid?

F- Fractions

Fm- Fractions, multiplication

Jane bought 3/4 yard of gingham to make a dress for her sister's doll. The material cost 72¢ a yard. How much did Jane pay for her 3/4 yard?

Fs- Fractions, subtraction

A baggage camel usually travels 2 1/2 miles in an hour. A riding camel may travel 9 miles in an hour. How many more miles does a riding camel travel in an hour?

Mathematics Problem Solving

Fas- Fractions, addition, subtraction

Johnny had 4 feet of leather for beading. He needed 3 feet to make a belt, 1 1/4 feet to make a headband, and 1/2 foot to make a bracelet. How many more feet of leather did he need?

Fms- Fractions, multiplication, subtraction

Ken had 3 train cars on his train, each one measuring 17 1/2 inches. His brother, Keith, had 4 train cars, totaling 60 inches in length. How many inches shorter was Ken's train?

M- Measurements

Ma- Measurements, addition

Jean was supposed to be home at 1:15 p.m. If she was 1 hour and 23 minutes late, what time did she arrive home?

R- Ratio and Proportion

Kathy learned how to make belts out of gimp at the arts and crafts center. If it takes 4 feet of gimp to make a 2-foot belt, how many belts can Kathy make from 12 feet of gimp?

W- Whole Numbers

Wa- Whole Numbers, addition

The Lund family took a train trip, with stops in between, from Chicago to Salt Lake City and return. The distance from Chicago to Denver was 1039 miles; from Denver to Salt Lake City, 580 miles; then from Salt Lake City to Omaha, 1026 miles; and from Omaha back to Chicago, 488 miles. How many miles did the Lunds travel by train?

Ws- Whole numbers, subtraction

The Wonderworld Guest Ranch has an elevation of 4257 feet above sea level. Cloud Peak, which can be seen from the ranch, has an elevation of 13,136 feet. How many feet higher than the ranch is Cloud Peak?

Wm- Whole Numbers, multiplication

If each of the 73 baggage camels in a desert caravan carried an average load of 450 pounds, how many pounds of freight did the caravan carry?

Wd- Whole Numbers, division

A family's total expenses during 8 days at a hotel were $491.60. What was the average cost per day?

At the Bingham Copper Mine, 38 huge electric shovels were in operation. At least 1/3 of the 270,000 tons of material moved each day was ore. How many tons of ore were mined each day?

Wma- Whole Numbers, multiplication, addition

In Riverside Elementary School there were 8 classrooms of 29 children each, and 1 classroom of 31 children. How many children were there all together in Riverside Elementary School?

Wmas- Whole Numbers, multiplication, addition, subtraction

The Ward family took a tour of the United States during their 4 weeks of vacation. In all, they spent 18 days on the road, 3 days at the beach, and the remainder sightseeing in the various cities. How many days did they have for sightseeing?

Vocabulary

QUESTION FORMAT

Given a phrase with one word in heavy type, choose one of the four answers that has most nearly the same meaning as the word in heavy type. (Shown below underscored.)

A **tall** building
* 1) high
2) wide
3) low
4) new

Broke it **deliberately**
1) by accident
2) into pieces
* 3) on purpose
4) with a loud noise

GRADE 5 SKILLS CLASSIFICATION

This is the only one of the eleven subtests for which no detailed classification of the skills tested is provided. The following general skills are tested:

1. The use of tools involved in word recognition (phonics, context clues, etc.)
2. Knowledge of the meanings of words
3. Sensitivity to fine differences in meanings and judgment in choosing the most appropriate word in a given context

Student is asked to identify a synonymous word or phrase for a given noun, verb, adjective, or adverb such as:

Nouns

Deficiency of water
Respect his **wisdom**
A little **precipitation**

Verbs

Securely **moored**
Shriveled and dried
Omit a number

Adjectives

Contrary opinions
Her **pious** grandfather
Authentic coins

Adverbs

Legally discharged
Merely the beginning
Spoke **previously**

TEACHER GUIDE ON FORMAT AND SKILLS CLASSIFICATION OF THE IOWA TESTS OF BASIC SKILLS (ITBS)

GRADE 7

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INTRODUCTION

This booklet contains information on the ITBS Format and Skills Classification for Grade 7. The purpose of this booklet is not to inform teachers of what the test items are; rather, the format items are given to provide teachers with examples of formats to which they can expose students so that students will not be handicapped by format-related problems. The skills classification list is given -- along with suggested questions to use with students -- to provide teachers with a clear idea of the kinds of cognitive skills required of the students by the tests.

There is no intent to "teach to the test" nor to give "last minute" training to students. Nor is there any intent to "prescribe curriculum." Rather, the booklet familiarizes students with the mechanics involved in test-taking and familiarizes teachers with ITBS skills as they relate to the wider, year-long scope of the MCPS curriculum.

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QUESTION FORMAT AND SKILLS CLASSIFICATION (Grade 7)

Reading Comprehension

QUESTION FORMAT

Given a reading selection, answer questions based on the information given. Selection may be a single paragraph, several paragraphs, several numbered paragraphs (¶), or a poem.

Which?

Whenever I'm walking in the wood
I'm never certain whether I should
Shuffle along where the dead leaves fall
Or walk as if I'm not there at all.

It's nice to rustle as hard as you can,
But I can't decide if it's nicer than
Creeping along, while the woodbirds call,
Pretending you are not there at all!

How does the poet walk as if he were "not there at all"?

* 1) He creeps.
2) He rustles.
3) He shuffles.
4) He pretends.

GRADE 7 SKILLS CLASSIFICATION

D (Details) TO RECOGNIZE AND UNDERSTAND STATED OR IMPLIED FACTUAL DETAILS AND RELATIONSHIPS

D-1 To recognize and understand important facts and details

Who? When? Where? Which? How many?

D-2 To recognize and understand implied facts and relationships

How? Why? In what way?
What ought to happen?
What does __________ implγ?

D-3 To deduce the meaning of words or phrases from context

What does "_________" refer to?
What is meant by the expression, "____________"?
What does the writer mean when he says, "____________"?
What is suggested by the statement, "_______________"?

Reading Comprehension

P (Purpose) - TO DEVELOP SKILL IN DISCERNING THE PURPOSE OR MAIN IDEA OF A PARAGRAPH OR SELECTION

P-1 To detect the main purpose of a paragraph or selection

What is the main purpose of the story?
What is the purpose of paragraph 5?
What was the author's purpose in writing this article?

P-2 To recognize the main idea or topic of a paragraph or selection

What is the best name for this story?
What is the one most important thing to remember from the story?
What would be a good heading for this article?
What is the topic sentence of paragraph 5?

O (Organization) - TO DEVELOP ABILITY TO ORGANIZE IDEAS

O-1 To recognize common elements or parallel topics in incidents or paragraphs

Which paragraphs describe _______? Which do not?
What are the 2 subtopics of paragraph 2?
Which paragraph could be eliminated without changing the purpose of the story?
Which of these questions is not answered by the article?

O-2 To recognize proper time sequence

Which happened first?
What is the last step in __________?
What is the order in which __________?
Where in the story would you place a paragraph describing ________?

Reading Comprehension

E (EVALUATION) - TO DEVELOP SKILL IN EVALUATING WHAT IS READ

E-1 To develop generalizations from a selection

Why is "__________" a good name for this story?
Why do you think this is not a true story?
What does this poem show?
The main character of this story would agree with which of these statements?
Which of these familiar sayings is illustrated by this story?

E-2 To recognize the writer's viewpoint, attitude or intention

How does the writer feel about _________?
With which of these statements would the author agree? disagree?
Why did the poet choose "______" for the name of his poem?

E-3 To recognize the mood or tone of a selection

How does the writer make you feel?
How should this poem be read -- fast, slowly, fast at first, then slowly, etc.?
Which words in the poem have a very soft sound?
Is this poem happy, angry, or sad?

E-4 To recognize outstanding qualities of style or structure

Why are there quotation marks around the words "__________"?
Why are the words ________ in italics?
What kind of words does the author use -- exaggerating? sarcastic? colorful?
Do you think this story was written as a newspaper article or a chapter in a book?

Language Skills

Spelling

QUESTION FORMAT

Given four words, pick the one that is spelled incorrectly. A fifth choice is (No mistakes).

Ex. 1
1) praise
2) bargain
* 3) immitate
4) section
5) (No mistakes)

Ex. 2
1) spout
2) strength
3) accent
4) hygiene
* 5) (No mistakes)

GRADE 7 SKILLS CLASSIFICATION

D- DOUBLE LETTER
Double letter eliminated (territory-teritory)
Unnecessary double letter (altogether-alltogether)
Combination of above (occasion-ocassion)

I- INTERCHANGED LETTERS (belief-beleif)

L- L, EL, LE SUBSTITUTIONS
puzzle-puzzel barrel-barrle folk-fok

M- MISCELLANEOUS AND MULTIPLE ERRORS
religious-religous refrigerator-refridgerator

N- NO MISTAKES
See Ex. 2 in Question Format

Spelling

O- OMITTED LETTERS
autumn-autum library-libary

P- PLURAL FORMS
echoes-echos thieves-thiefs

R- R, ER, OR SUBSTITUTIONS
after-aftr introduce-interduce error-errer

S- S, SC, SH, C, CH, T, Z SUBSTITUTIONS
otherwise-otherwize exercise-exersize phrase-phraze
parachute-parashute absence-absense convention-convension

T- T, ED SUBSTITUTIONS
jumped-jumpt congratulate-congradulate

V- VOWEL SUBSTITUTIONS
Single vowels - weapon-weapen
Diphthongs- courage-curage

Y- Y, EY, I SUBSTITUTIONS
mystery-mistery heavy-heavey opinion-opinyon

Language Skills

Capitalization

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in capitalization appears. The fourth choice is (No mistakes).

Ex. 1 * 1) I asked john
2) to go to the store
3) with me yesterday.
4) (No mistakes)

Ex. 2 1) My friend has
2) moved to a town
3) called Woodside.
* 4) (No mistakes)

Given a letter, choose the line in which a mistake in capitalization appears.

Ex. 3 1) Lincoln School
* 2) East hartford, Ohio
3) March 21, 1956
4) (No mistakes)

Ex. 4 * 1) Mr. John Drake, jr.
2) Hartford Journal
3) Hartford, Ohio
4) (No mistakes)

Ex. 5 * 1) Dear sir:
2) Thank you very much for let-
3) ting our class tour your plant.
4) (No mistakes)

Ex. 6 1) We enjoyed the visit very much,
2) and we learned many facts about
* 3) the printing of a daily Newspaper.
4) (No mistakes)

Ex. 7 * 1) Very Truly Yours,
2) Edwin D. Woolf
3) Seventh Grade Secretary
4) (No mistakes)

Capitalization

Given an advertisement, announcement or notice containing partial sentences or phrases, choose the line in which a mistake in capitalization appears.

For Sale—Miscellaneous

Ex. 8 * 1) Used remington portable
2) typewriter. Machine and case
3) in good condition. Reedville 3714.
4) (No mistakes)

Ex. 9 1) Three-speed record player and
* 2) radio combination. will take
3) highest offer made by 9:00 P.M.
4) (No mistakes)

Ex. 10 * 1) Outboard motor and Aluminum
2) boat for sale—$300. Seats
3) four. Can be seen at 114 Handy St.
4) (No mistakes)

GRADE 7 SKILLS CLASSIFICATION

1. THE PRONOUN I

3. WORDS INDICATING FAMILY RELATIONSHIP, WHEN USED SPECIFICALLY AND WITHOUT POSSESSIVE PRONOUN (Grandmother Williams, Uncle Joe)

5. FIRST WORD OF A SENTENCE

6. FIRST WORD IN A QUOTATION

7. IN WRITING LETTERS, THE FIRST WORD AND THE WORD WHICH STANDS IN PLACE OF THE PERSON'S NAME IN THE SALUTATION (Dear Sir, Dear Madam)

9. CERTAIN ABBREVIATIONS (Jr., Sr.)

13. TITLES OF BOOKS, MUSIC, MAGAZINES, ETC. (Boy Scout Handbook, Robin Hood, America the Beautiful)

15. NAMES OF COUNTRIES AND CONTINENTS

16. NOUNS WHICH DESIGNATE DEFINITE GEOGRAPHIC PORTIONS OF THE COUNTRY
    We go back East to visit often.
    On a trip through the Southwest, we bought a hooked rug.

17. NAMES OF STREET, AVENUES, ETC.

18. NAMES OF RIVERS, OCEANS, CANALS, MOUNTAINS, ETC.

19. NAMES OF BUILDING, SCHOOLS, PARKS, ETC.

20. NAMES OF RACIAL, POLITICAL, OR RELIGIOUS BODIES (Oriental people, Socialist philosophy, Christian minister)

21. PROPER ADJECTIVES (Chinese food, Dutch shoes, German boy)

22. NAMES OF SPECIFIC ORGANIZATIONS (Red Cross, Salvation Army, Riverside Boys' Club, Western Steel Company)

23. NAMES OF IMPORTANT HISTORICAL PERIODS OR EVENTS (Korean War, French Revolution)

24. SPECIFIC BRAND NAMES

You would expect a bike made by Speedo to be built for speed.
Our new shampoo is called Bubble Up, and it really does.
I would like to sell my Royalton typewriter and buy a better brand.

25. NAMES OF BODIES IN THE SOLAR SYSTEM (Jupiter, Big Dipper, Milky Way)

26. ALL EXPRESSIONS USED FOR THE DEITY AND BIBLE (Old Testament, Bible stories, Lord)

OV- OVER-CAPITALIZATION

Let's write a letter to that Toy Company and complain about the missing parts.
We are going to the beach this Summer.
The Baseball game starts at 4:00.
Please get Milk at the Store.
I want to be a Doctor when I grow up.

Language Skills

Punctuation

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in punctuation appears. The fourth choice is (No mistakes).

Ex. 1
1) The goat
2) ran through the
* 3) picket fence
4) (No mistakes)

Ex. 2
1) We're going to
2) the pool for a swim.
3) Do you want to come?
* 4) (No mistakes)

Given a letter, choose the line in which a mistake in punctuation appears.

Ex. 3
* 1) 17 Mt Carmel Road
2) Springdale, Ohio
3) March 3, 1954
4) (No mistakes)

Ex. 4
* 1) Northeast Seed Co
2) Box 4119
3) New York City, N. Y.
4) (No mistakes)

Ex. 5
* 1) Gentlemen;
2) Please send me the collection of
3) seeds that you advertised for $1.00.
4) (No mistakes)

Ex. 6
1) I enclose a money order for that amount.
2) Very truly yours,
3) Richard Thornton
* 4) (No mistakes)

Punctuation

Given an advertisement, announcement, or notice containing partial sentences or phrases, choose the line in which a mistake in punctation appears.

		NOTICES
Ex. 7	1)	For sale: Used
	* 2)	roller skate's. Good
	3)	condition. $5.00. See Sally.
	4)	(No mistakes)
Ex. 8	1)	For sale: Three-speed
	2)	boy's bike. Will take best
	3)	offer. Call Bill after 3:00 p.m.
	* 4)	(No mistakes)
Ex. 9	1)	Giveaways: Tropical fish, tank,
	2)	filter, and food. Moving to
	* 3)	Akron Ohio. Call Joe at 214-6212.
	4)	(No mistakes)

GRADE 7 SKILLS CLASSIFICATION

1. USE OF PERIOD
   - 1a. Use of period, at the end of complete declarative sentence
   - 1b. Use of period, with abbreviations

2. USE OF QUESTION MARK

3. USE OF COMMA
   - 3a. Use of comma, to separate words in a series
   - 3b. Use of comma, to separate names of city and state
   - 3d. Use of comma, at end of complimentary close of a letter (Yours truly,)
   - 3h. Use of comma, to set off words in apposition (Sam Jones, our best player, fouled out.)
   - 3i. Use of comma, in a compound sentence, to set off independent clauses joined by such conjunctions as "and" and "but", if a change of subject takes place.
     - His reasoning was correct, but his answer was wrong.
     - It had been years since we were there, and the owner didn't recognize us.
   - 3j. Use of comma, in direct discourse, to separate quotation from rest of sentence
     - "Hello, everyone," we called.
     - "How do you feel," she asked, "now that you've finished the book?"
   - 3k. Use of comma, in direct address, to set off name of person addressed.
     - Carol, please come here.
   - 3m. Use of comma, to set off non-restrictive phrases or clauses
     - Dan fell, knocking his chair into the wall behind him.
     - "I don't understand the math," said Jack, shaking his head.

Punctuation

4. USE OF APOSTROPHE
   - 4a. Use of apostrophe in contractions (I've, hasn't)
   - 4b. Use of apostrophe in forming the possessive of nouns (Sally's hair, doctor's house)

5. USE OF DOUBLE QUOTATION MARKS
   - 5a. Use of double quotation marks before and after a direct quotation
   - 5b. Use of double quotation marks with titles
   - 5c. Use of double quotation marks, position with reference to other punctuation
     "Do you like your new bike?"
     The timer yelled, "Go!" to start the race.

6. USE OF COLON
   - 6a. Use of colon after salutation of a business letter (Madam:)
   - 6b. Use of colon preceding an enumeration of items
     We have our choice of five colors: red, brown, green, blue, or orange.

7. USE OF SEMICOLON TO SEPARATE CO-ORDINATE CLAUSES NOT JOINED BY A CONJUNCTION
   A library is supposed to be a quiet place; yet there are people who disturb others by talking loudly.

8. USE OF EXCLAMATION MARK
   Gary screamed, "Look out! Move away! The train is coming!"

OV- OVER-PUNCTUATION

Ov-1 Over-punctuation, use of comma to mark a trivial phrase
John was unhappy because it seemed, to rain every time he went to the beach.

Ov-2 Over-punctuation, use of comma to set off restrictive clauses or phrases
Her costume was so realistic no one could tell, who she was.

Ov-4 Over-punctuation, use of apostrophe in plurals of nouns
The boys' spent three hours mowing the lawn.

Ov-5 Over-punctuation, use of apostrophe in possessive pronouns
Their house is larger than our's.

Ov-7 Over-punctuation, use of quotation marks with indirect quotations and unquoted matter
The teacher said that "Carol was sick."

N- NO MISTAKES
See Ex. 2 in Question Format

Language Skills

Usage

QUESTION FORMAT

Given three numbered sentences, choose the one that has a mistake in usage. The fourth choice is (No mistakes).

Ex. 1
1) We are finished.
2) Our cat ran away.
* 3) It ain't your toy.
4) (No mistakes)

Ex. 2
1) The paper was torn.
2) Without warning, the chain broke.
3) The gifts were wrapped nicely.
* 4) (No mistakes)

GRADE 7 SKILLS CLASSIFICATION

1. USE OF PRONOUNS
   1a. Use of pronouns, case forms
      Her has a cold.
      Ask if us are invited to the party.

   1d. Use of pronouns, miscellaneous forms commonly confused
      The girls pulled the wagon all by theirselves.

2. USE OF VERBS
   2a. Use of verbs, the past tense
      The man done all he could to fix the car.
   2b. Use of verbs, the past participle
      We have sang every song in our music books.
   2c. Use of verbs, agreement of subject and verb
      They has a pool.
      There weren't enough money.
   2d. Use of verbs, miscellaneous forms incorrectly used
      Leave me see that.

3. USE OF ADJECTIVES AND ADVERBS
   3a. Use of adjectives and adverbs, forms commonly confused
      That milk smells badly.
      I can dance as good as Terry.
   3b. Use of adjectives and articles (a, an, the)
   3c. Use of adjectives and adverbs, comparative and superlative forms
      You could see more clearer if your glasses were clean.
      This is the most interestingest story I have ever read.
   3d. Use of adjectives and adverbs, miscellaneous modifying forms
      Do you know what boat belongs to Mr. Jones?
      My new shirt has a tore sleeve.
      He was burned bad by the fire.

4. AVOIDANCE OF DOUBLE NEGATIVE
      I couldn't hardly move my sore arm.

5. AVOIDANCE OF REDUNDANCIES
      We went swimming, but Joe he couldn't go.
      I had me a good dog for a pet.

N- NO MISTAKES
   See Ex. 2 in Question Format

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Work Study Skills

Map Reading

QUESTION FORMAT

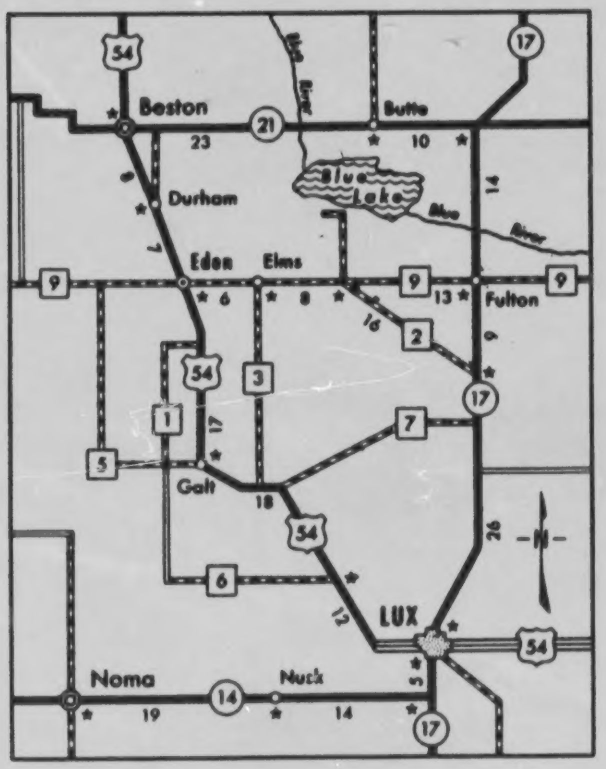
Given a map and key, answer questions about the things shown. Maps may be of city sections, countries, parks, schools, highways and roads, camps, etc.

Which of these cities is closest to Blue Lake?

1) Eden
2) Galt
3) Noma
* 4) Butte

When numerous cities, towns, countries, etc., are shown on a map, the names of the cities and towns are arranged in alphabetical order, beginning near the top of the map, to help students find them quickly. Students are informed of this as follows:

> The map on this page is a part of a road map. To help you to find any city or town shown on the map, the names of the cities and towns appear in alphabetical order, beginning near the top.


54
Beston
21
Butte
17
23
10
Blue River
Blue Lake
14
Durham
Eden
Elms
9
9
9
6
8
13
Fulton
16
2
54
3
17
7
1
5
Galt
18
54
26
N
6
12
LUX
54
Noma
14
Nuck
19
14
17

GRADE 7 SKILLS CLASSIFICATION

1. ABILITY TO ORIENT MAP AND DETERMINE DIRECTION
   1b. To determine direction from parallels or meridians

See Figure A

How can you tell that Jolar is farther west than Manton?

Which is directly south of Egan--Luna or Koshin? How can you tell?

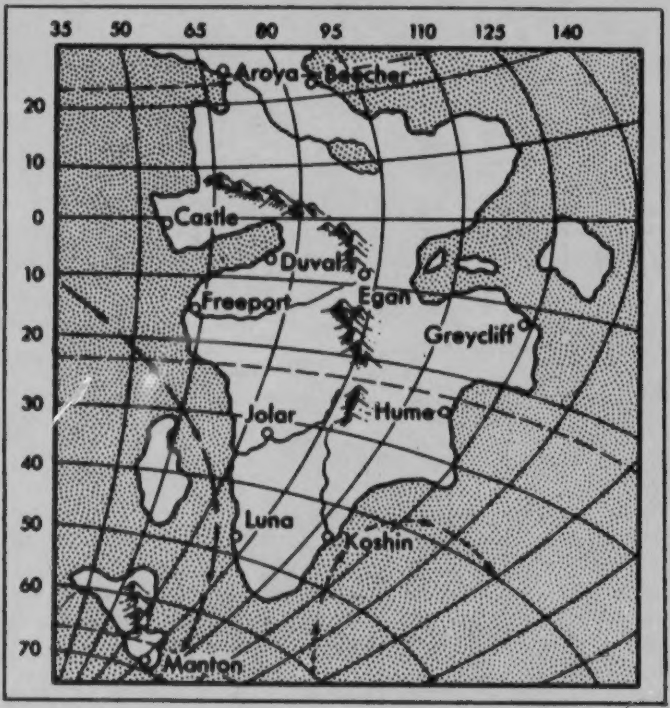

35
50
65
80
95
110
125
140
20
10
0
10
20
30
40
50
60
70
Aroya
Beecher
Castle
Duval
Egan
Freeport
Greycliff
Jolar
Hume
Luna
Koshin
Manton

Figure A

1c. To determine direction of river flow or slope of land

In which direction does the _______River flow?

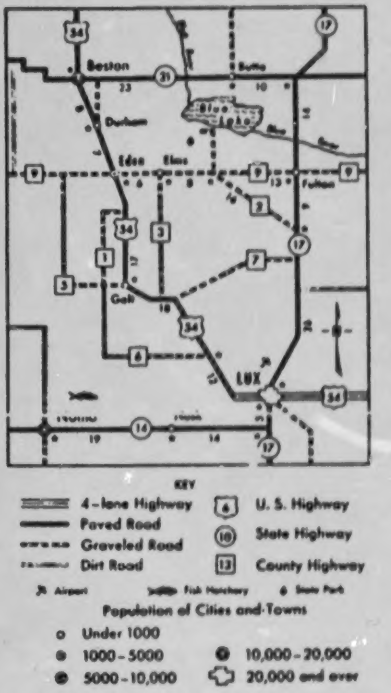
Traveling upstream on the ________River, you would come to which city first?

Which is a tributary?

Which city would you expect to be of higher elevation, ________ or _________? Why?

2. ABILITY TO LOCATE AND/OR DESCRIBE PLACES ON MAPS AND GLOBES

2b. Ability to locate and/or describe places on maps and globes, through the use of a key


34
Beston
21
Butte
17
23
10
Blue Lake
Blue River
Durham
Eden
Elms
9
13
Fulton
6
8
2
34
3
1
12
17
7
5
Galt
18
34
6
LUX
34
Noma
14
19
14
17
KEY
4-lane Highway
Paved Road
Graveled Road
Dirt Road
6 U. S. Highway
10 State Highway
13 County Highway
Airport
Fish Hatchery
State Park
Population of Cities and Towns
Under 1000
1000-5000
5000-10,000
10,000-20,000
20,000 and over

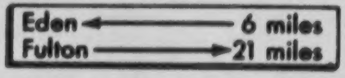
What might be the population of Noma -- 19,723; 23,476; or 9,723?

What is (17) -- a four-lane highway, a paved state highway, or a graveled road?

Near which town is there a state park -- Noma, Elms, or Lux?

2c. Ability to locate and/or describe places on maps and globes, through the use of distance and/or direction

distance: Where might this sign be located?


Eden ← 6 miles
Fulton → 21 miles

direction: If you were traveling west on Route 9 from Elms, which city would you come to first?

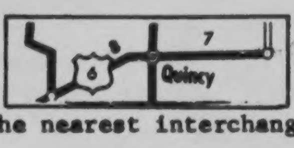
distance and direction: What is located 21 miles east of Fulton?
What is 30 miles southeast of Galt?

2d. Ability to locate and/or describe places on maps and globes, through the use of latitude or longitude

Where would you be if you were at the point 20° N, 98° E?
Which is the most accurate location of ________, -- 18° N, 5° W, or 18° N, 10° E?
Which is not shown -- the equator, the Arctic Circle, or the Antarctic Circle?
Is the city of ________ located on or near the Tropic of Capricorn or the Tropic of Cancer?

3. ABILITY TO DETERMINE DISTANCES

3a. Determining distances on a road map with or without use of key

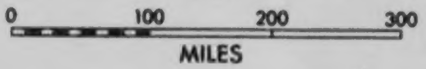


How many miles from _______ is the nearest interchange with Interstate _________?

Driving from ________ to _________ on Highway _________, how many miles are on four lane roads?

A man drove from _______ to ________ at an average speed of 30 miles per hour. How long did the trip take?

3b. Determining distances by using a scale of miles


0
100
200
300
MILES

3c. Determining distances on a globe (necessitates knowing approximately how many miles are represented by each degree longitude and latitude on any globe)

See Figure B

About how many miles is it from the 65° line to the 70° line?

About how many miles is Zulu from Bango?

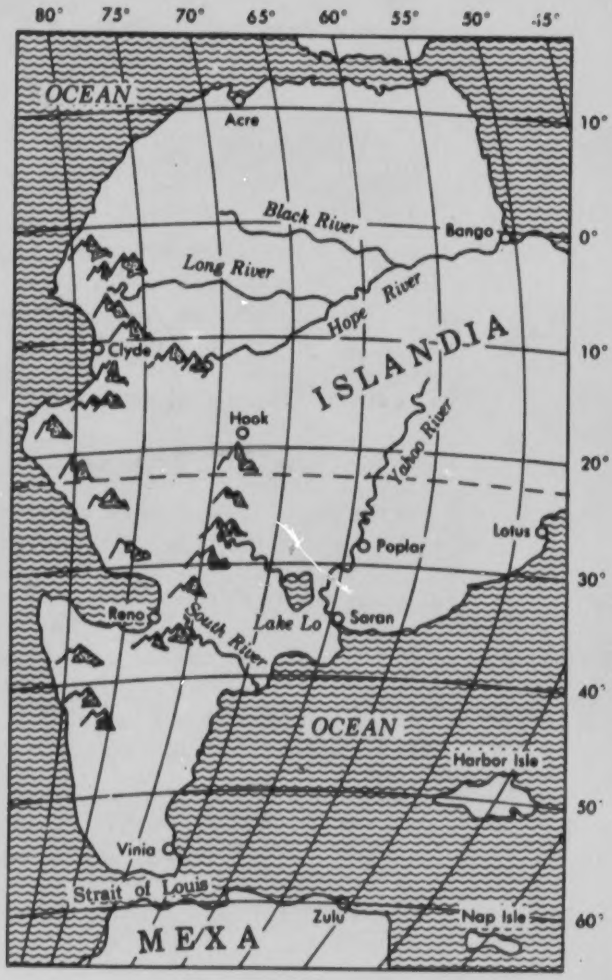

80°
75°
70°
65°
60°
55°
50°
45°
10°
0°
10°
20°
30°
40°
50°
60°
OCEAN
Acre
Black River
Bango
Long River
Hope River
ISLANDIA
Clyde
Hook
Yahoo River
Poplar
Lotus
Reno
South River
Lake Lo
Saran
OCEAN
Harbor Isle
Vinia
Strait of Louis
Zulu
Nap Isle
MEXA

Figure B

3d. Comparing distances

What is the shortest route to travel from ________ to ________?

How much farther will you drive going from ________ to ________ if you take Routes _____, ______ and _______ instead of Highway _____ and Route _______?

How far is it from ______ to _______ by the shortest route?

4. ABILITY TO DETERMINE OR TRACE ROUTES OF TRAVEL

Which of these highways ends at _________?

The junction of Routes _____ and _____ is at which city?

For how many miles do Highways __________ and ___________ share the same roadway?

Where does Route ____________ become an alternate for Route ___________?

5. ABILITY TO UNDERSTAND SEASONAL VARIATIONS, SUN PATTERNS, AND TIME DIFFERENCES

In which of these cities is winter clothing worn all year round?

In which of these cities does the sun set first?

When it is noon in _______, in which of these cities is it midnight? early evening?

During which month would ______ have the shortest days?

6. ABILITY TO READ AND COMPARE FACTS FROM ONE OR MORE PATTERN MAPS

See Figure C

Which state mines between 15 and 20 thousand tons of coal each year?
Which city is located at the foot of a mountain?
The greatest amount of low land shown on the map is where?
What is the total wheat production of Elan, in tons?
What do the cities of Clark and Incus have in common?
Which product is most likely to be sent from Clark to Hopi?

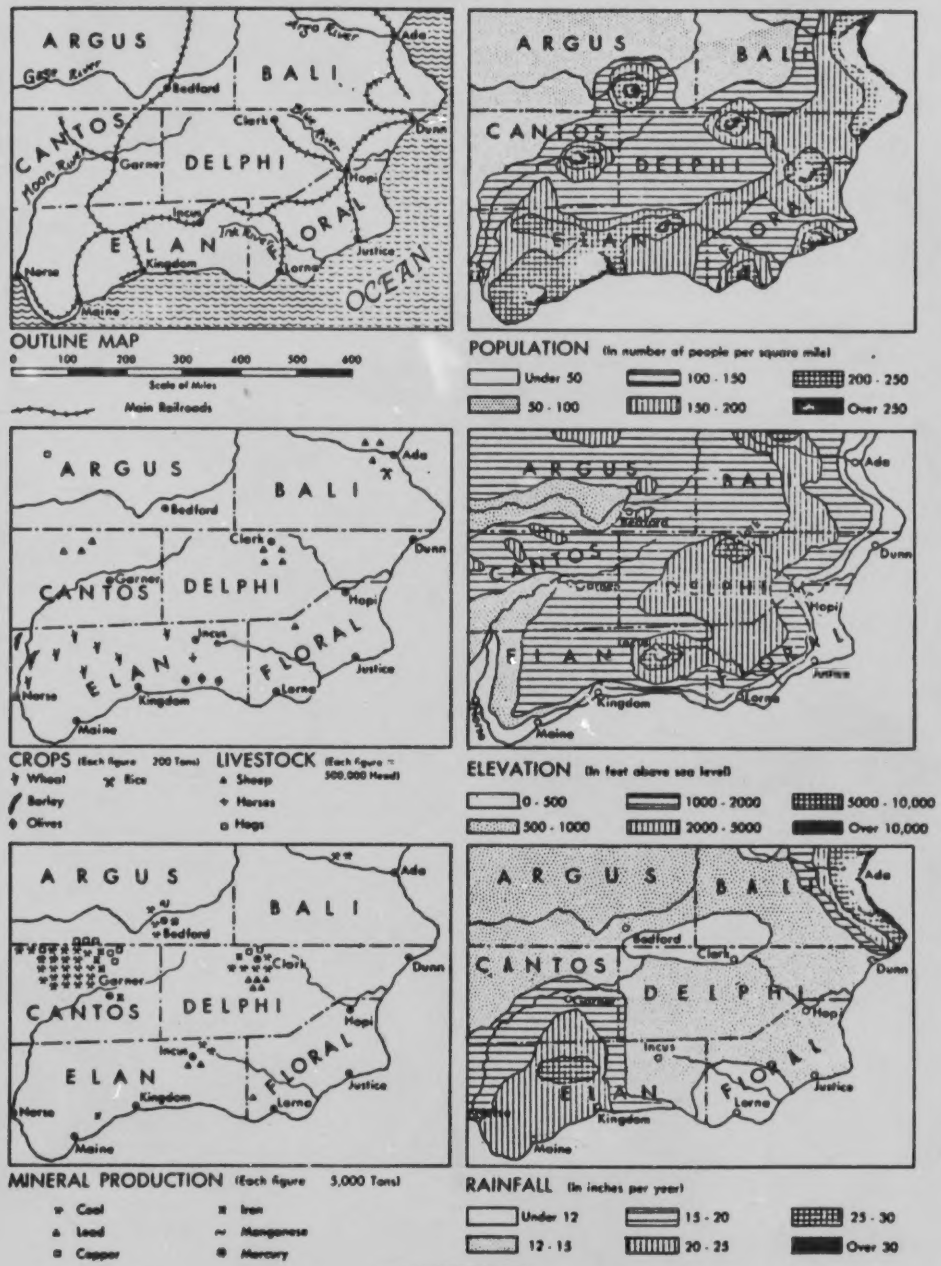
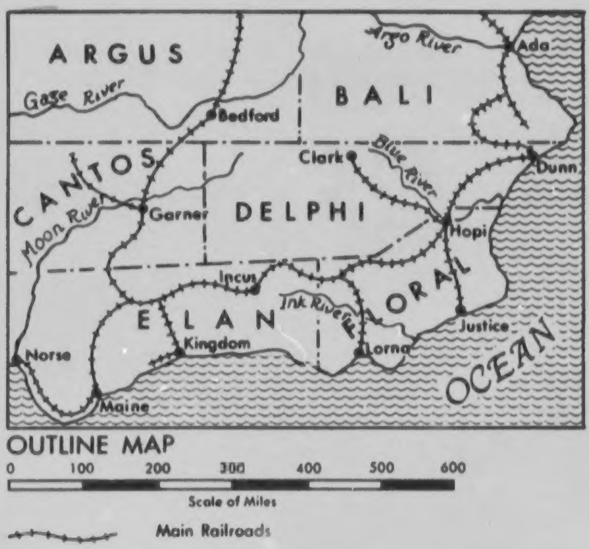
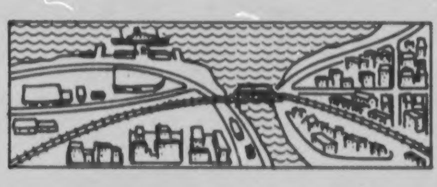

ARGUS
BALI
CANTOS
DELPHI
ELAN
FLORAL
OCEAN
Bedford
Clark
Garner
Hopi
Dunn
Ada
Incus
Kingdom
Norse
Maine
Lorne
Justice
OUTLINE MAP
0 100 200 300 400 500 600
Scale of Miles
Main Railroads
POPULATION (In number of people per square mile)
Under 50
50 - 100
100 - 150
150 - 200
200 - 250
Over 250
CROPS (Each figure 200 Tons)
Wheat
Barley
Olives
Rice
LIVESTOCK (Each figure = 500,000 Head)
Sheep
Horses
Hogs
ELEVATION (In feet above sea level)
0 - 500
500 - 1000
1000 - 2000
2000 - 5000
5000 - 10,000
Over 10,000
MINERAL PRODUCTION (Each figure 5,000 Tons)
Coal
Lead
Copper
Iron
Manganese
Mercury
RAINFALL (In inches per year)
Under 12
12 - 15
15 - 20
20 - 25
25 - 30
Over 30

Figure C

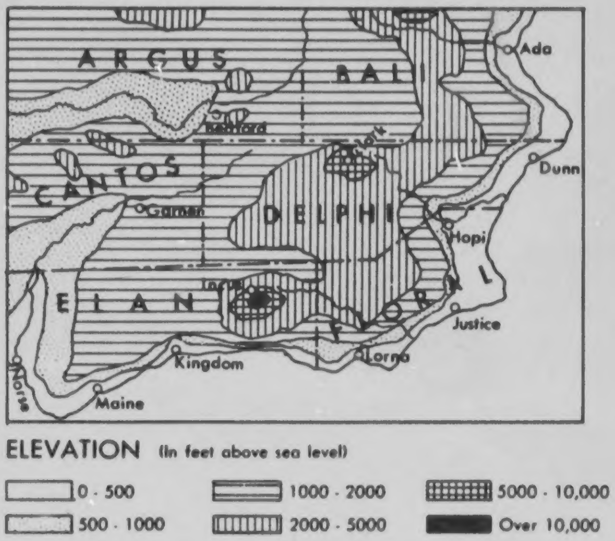
7. ABILITY TO VISUALIZE LANDSCAPE FEATURES

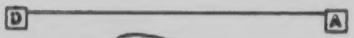

ARGUS
Argo River
Ada
Gase River
Bedford
BALI
CANTOS
Clark
Blue River
Dunn
Moon River
Garner
DELPHI
Hopi
Incus
ORAL
Ink River
ELAN
Justice
Norse
Kingdom
Lorna
OCEAN
Maine
OUTLINE MAP
0 100 200 300 400 500 600
Scale of Miles
Main Railroads

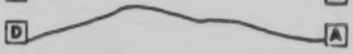


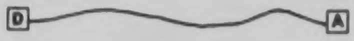
Which city is shown in this ai view -- Ada or Dunn?

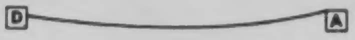
Why is this not a picture of the city of Garner? of Justice?


ARGUS
BALI
Ada
Bedford
CANTOS
Dunn
Garner
DELPHI
Hopi
Incus
ELAN
FLORAL
Justice
Kingdom
Lorna
Norse
Maine
ELEVATION (In feet above sea level)
0 - 500
500 - 1000
1000 - 2000
2000 - 5000
5000 - 10,000
Over 10,000

1) 

2) 

3) 

4) 

Which of these shows the changes in elevation of a straight line drawn from Dunn to Ada?

8. ABILITY TO INFER MAN'S ACTIVITIES OR WAY OF LIVING
   - 8a. Ability to infer man's activities or way of living from outline maps and/or
   - 8b. Ability to infer man's activities or way of living from pattern maps

Which is probably the busiest railroad center?
Which of these things is most likely to be imported to _______ -- fish or automobiles?
What is probably the main reason why _____ is so sparsely populated?
Why is there very little industry in Southwestern _________?
Which state would be most likely to use irrigation methods in farming?
Which business activity would _______ and ________ have in common?
Which city is most likely to have petroleum processing plants?

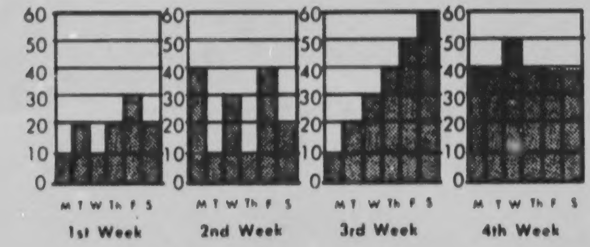
WORK STUDY SKILLS

Reading Graphs and Tables

QUESTION FORMAT

Given a bar graph, line graph, picture graph, circle graph or table, answer questions based on the information provided. One of the choices may be, "The table does not tell," or "One cannot tell from this graph."

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.



Which is true of sales during the month?
1) They were best the first and second weeks.
2) They were best the second and third weeks.
3) They changed from day to day but not from week to week.
* 4) They increased each week.

How much did it cost Chick and Martha to buy the lemonade for the first week's sales?

1) $1.10
2) $ .60
3) $1.00
* 4) One cannot tell from this graph

GRADE 7 SKILLS CLASSIFICATION

2. TO RECOGNIZE FROM SUBTITLES AND ROW OR COLUMN HEADINGS WHAT IS SHOWN BY EACH PART OF A GRAPH OR TABLE

See Figure D

Within which group are tractor operators included?
Water power is what percentage of the total Mineral Fuel and Water Power group? (The graph does not tell.)

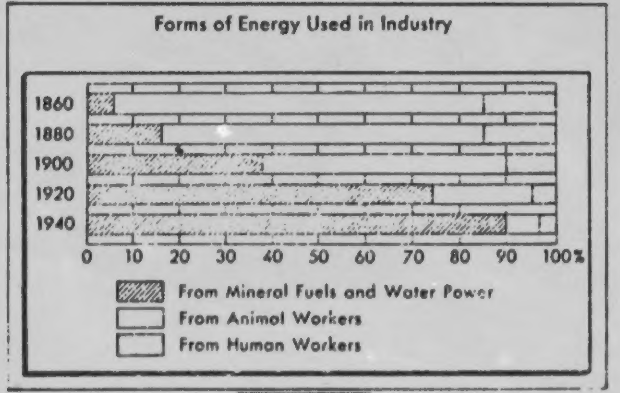


Figure D

Reading Graphs and Tables

See Figure E

Which would be included in Group C -- a public library or a flour mill?

How many of the groups shown does it take to make up 100% of the wealth of the U.S.?

What Makes Up the Wealth of the United States

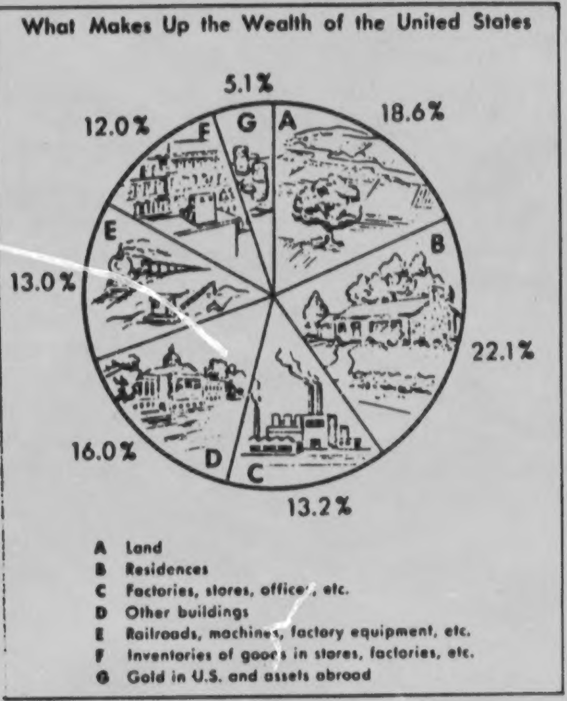


Figure E

See Figure F

Which zones have the same parcel post rates for all shipping weights?

What would be the exact weight of a package which costs 44¢ to send to Zone 3? (One cannot tell from the table)

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	66¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure F

3. TO READ AMOUNTS

3a. To read amounts by using the scale or scales on bar, line, and picture graphs

See Figure G

What was the total amount earned during the first week?

How many weeks included at least one day on which the amount made was over 35¢?

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.

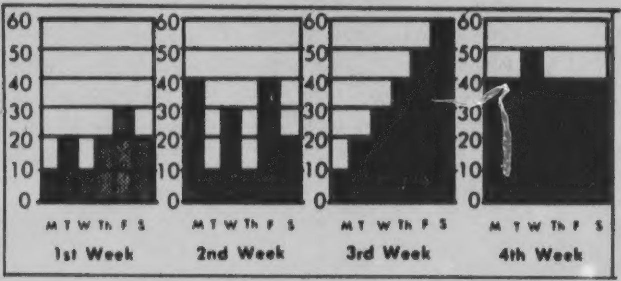


Figure G

See Figure H

What was the lowest temperature recorded during this period?

In how many months was the average monthly temperature above 45 degrees?

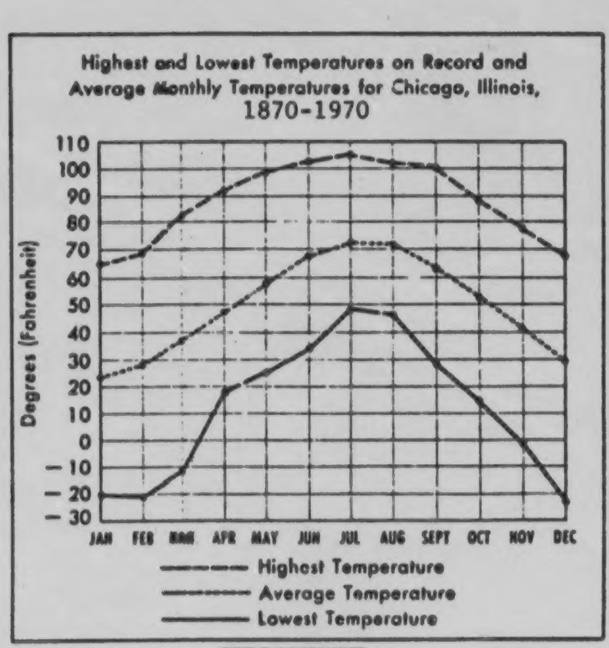

Highest and Lowest Temperatures on Record and Average Monthly Temperatures for Chicago, Illinois, 1870-1970

Figure H

Reading Graphs and Tables

See Figure I

Which two product groups together contributed more than half of each dollar spent?

How many product groups contributed less than 15¢ of each dollar spent?

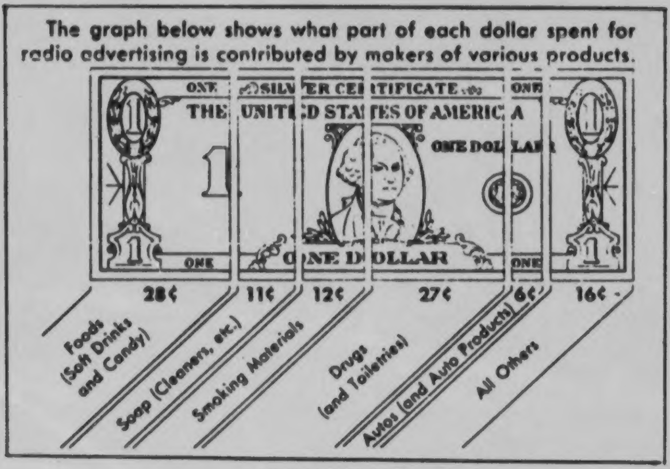


Figure I

3d. To read amounts by using special symbols and a key

See Figure J

About what fraction of farms have electricity?

In general about how many farmers out of every hundred have automobiles?

About what percent of farms are without running water?

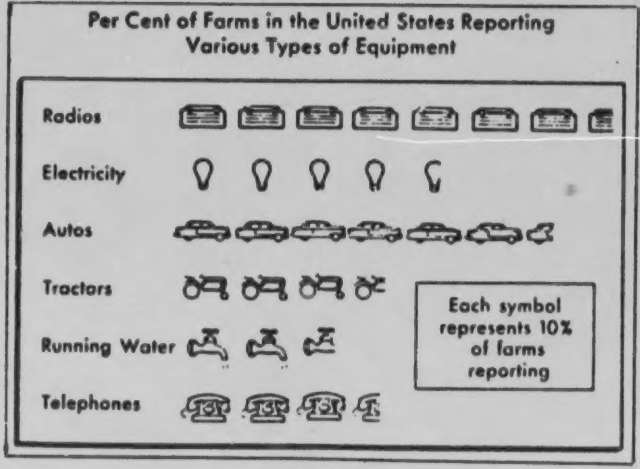


Figure J

See Figure E

Products which have not yet been sold to the consumer account for about what fraction of the total U. S. wealth?

If the estimated wealth of the U.S. is 900 billion dollars, what is the approximate total value of railroads, machines, factory equipment, etc.

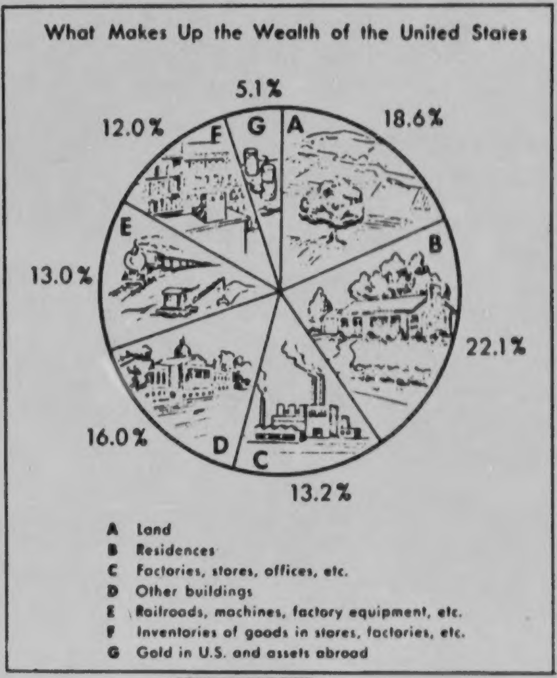

What Makes Up the Wealth of the United States

Figure E

4. TO COMPARE TWO OR MORE VALUES READ FROM A GRAPH OR TABLE

4a. By determining rank (greatest, most, fewest, least, first, last)

See Figure E

Which group ranks second to residences in making up total U. S. wealth?

See Figure I

Which product group makes the greatest contribution to each dollar spent for advertising?

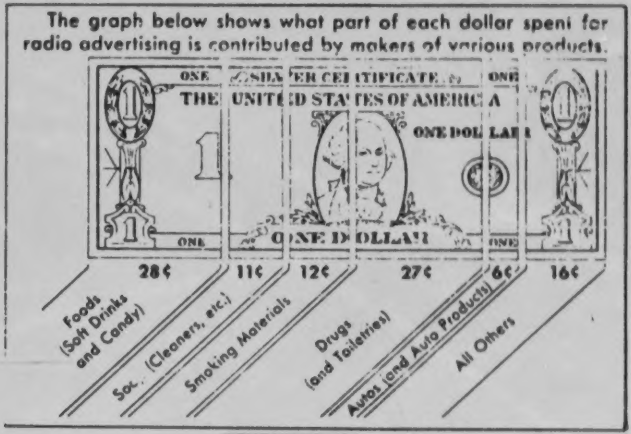

The graph below shows what part of each dollar spent for radio advertising is contributed by makers of various products.

Figure I

See Figure G

Which was the most profitable day for lemonade sales?

(Heading for Figure G)

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.

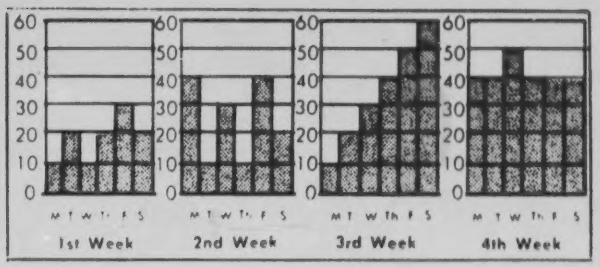


Figure G

See Figure J

Which type of equipment is most often found on the farms reporting? least often?

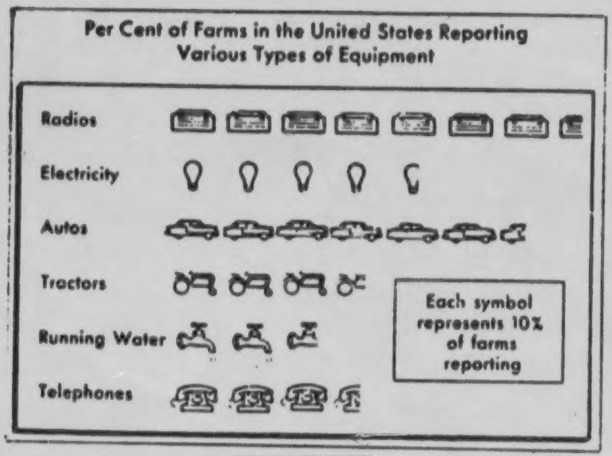


Figure J

4b. By determining differences between amounts (more, less, fewer, greater, equal to, same as)

See Figure F

How much more would it cost to ship a six-pound package than a two-pound package to Zone 4?

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	66¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure F

See Figure H

In January, how many degrees less than the highest temperature was the lowest temperature recorded?

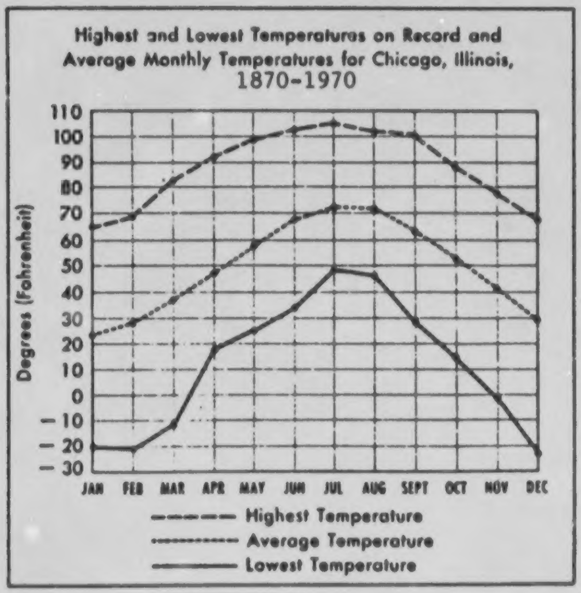


Figure H

Reading Graphs and Tables

See Figure G

On which two Fridays was the same amount of lemonade sold?

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.

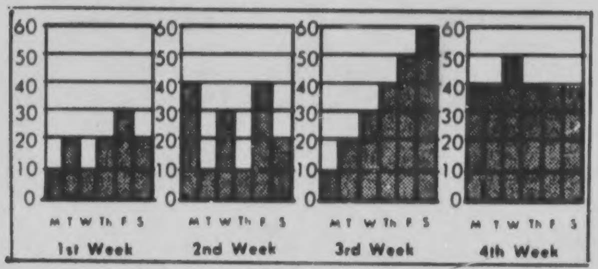


Figure G

See Figure J

Which of the following are found on farms about equally as often?

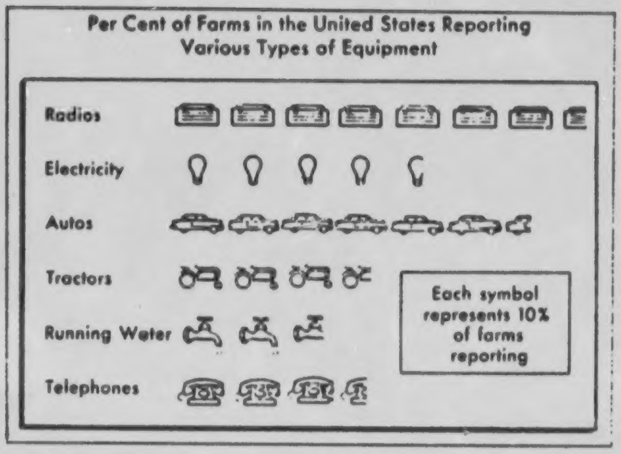


Figure J

4c. By determining how many times greater one amount is than another (half as much, twice as much, what percent, what part)

See Figure I

Smoking materials contributed twice as much to radio advertising as what other group of products?

Drugs and toiletries contributed about what percent of each dollar spent?

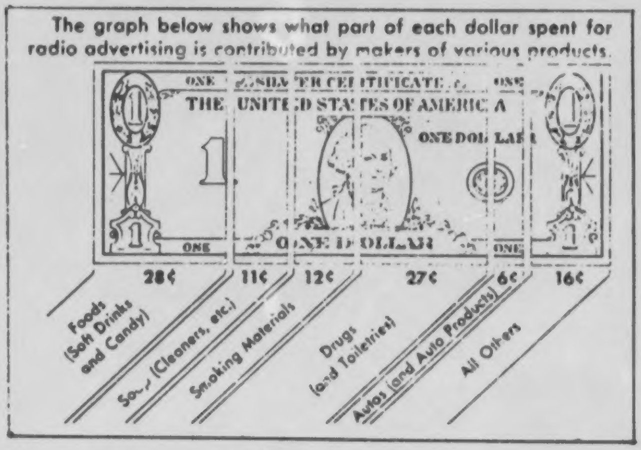


Figure I

Reading Graphs and Tables

See Figure E

The assets provided by railroads, machines, factory equipment, etc., and inventories of goods is what part of the total U.S. wealth?

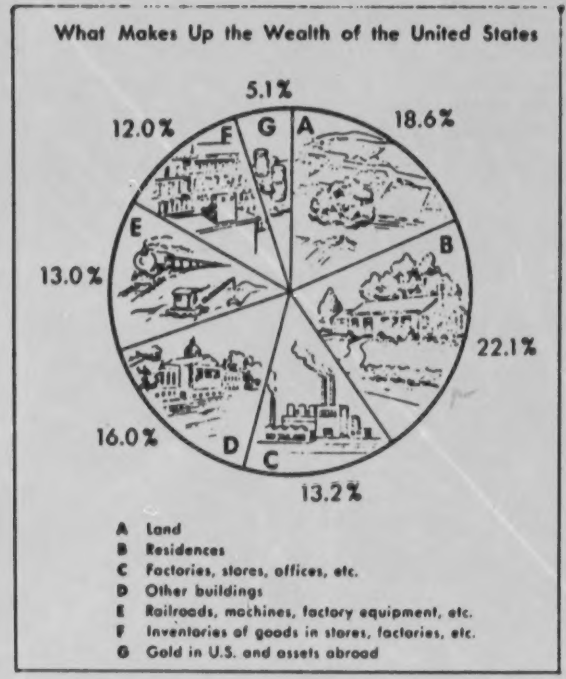


Figure E

See Figure F

It costs half as much to send a 6 lb. 5 oz. package in the city than to send it to which zone?

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	66¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure F

5. TO DETERMINE RELATIVE RATES OR TRENDS

See Figure D

During which 20-year period did the proportion of energy from fuels and water power increase the most?

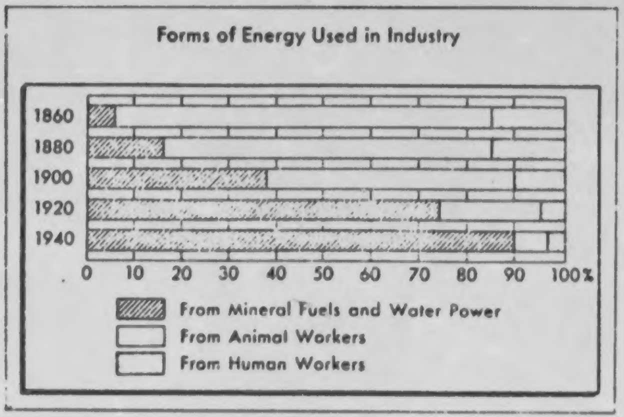


Figure D

Reading Graphs and Tables

See Figure F

Within which postal zone is there the greatest increase in postage rate as package weight increases?

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
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9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure F

See Figure H

During which season of the year is there the least variation in temperature in Chicago?

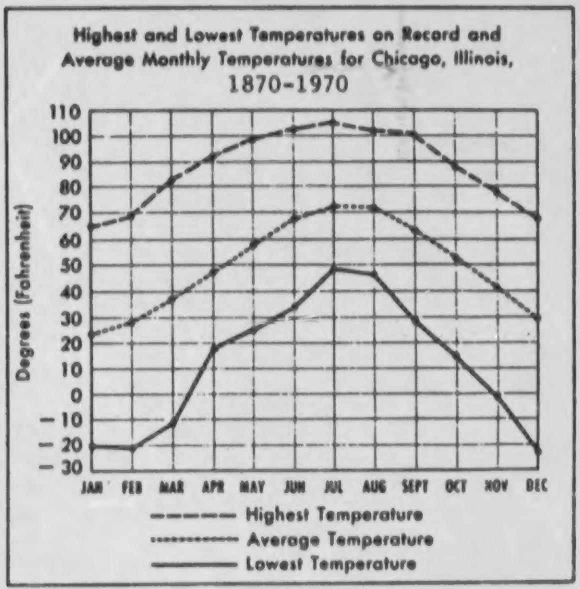


Figure H

See Figure G

During which week was there the greatest change from day to day?

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.

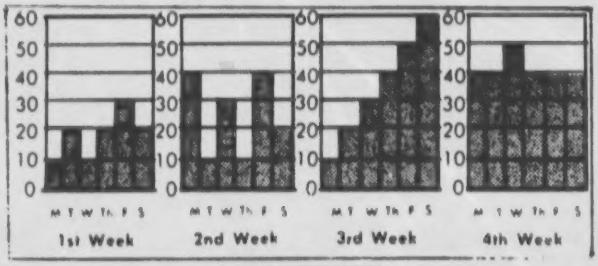


Figure G

6. TO DETERMINE UNDERLYING RELATIONSHIPS THROUGH CORRECT INTERPRETATION OF A GRAPH

See Figure E

About what percent of the wealth of the U.S. is invested in buildings?

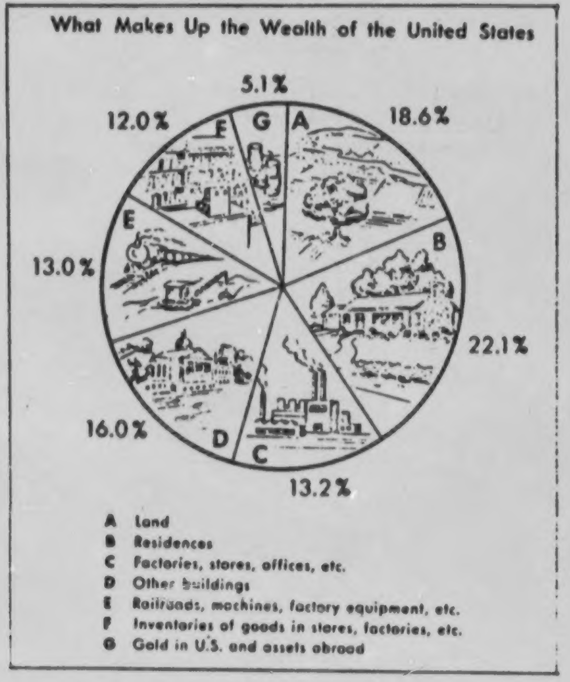


Figure E

See Figure D

What is the most reasonable estimate of the percent of energy from fuels and water power in 1910 -- 56% or 38%?

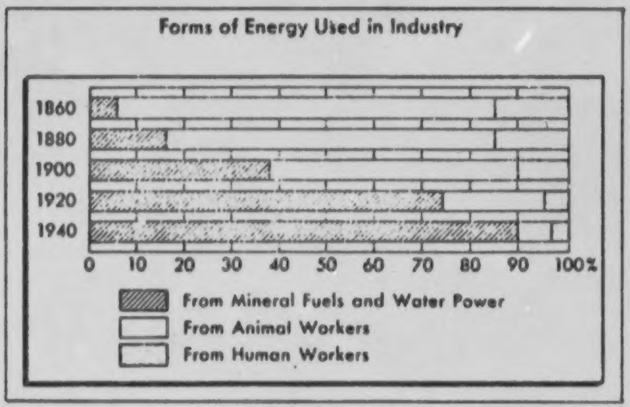


Figure D

See Figure G

The total sales during the month were best on which day?

Chick and Martha ran a lemonade stand last August. The graph below shows how much money they made each day, in cents.

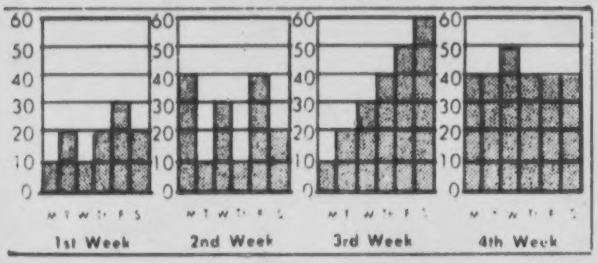


Figure G

Reading Graphs and Tables

7. TO GRASP THE OUTSTANDING FACTS PORTRAYED BY A GRAPH

What conclusion can be drawn from this graph?
What does the graph suggest about __________?
What is the one most important fact which this graph shows?

Work Study Skills

Knowledge and Use of Reference Materials

QUESTION FORMAT -- ALPHABETIZING

Given a list of four numbered words, choose the one that comes first alphabetically.

1) given
* 2) every
3) first
4) hide

GRADE 7 SKILLS CLASSIFICATION -- ALPHABETIZING

A. SKILL IN ALPHABETIZING

- To first letter
- To second letter
- To third letter
- To fourth letter
- Proper names
    - Quincy Meat Market
    - Quincy, Neal
    - Quinn, Mark F.
    - Woods, J. B.
    - Woods, John
    - Woods, John L.
    - Saint Vincent
    - sanitize
    - San Francisco
- Compound words
    - restfully
    - restless
    - restlessness
- Hyphenated words mixed with words that are not hyphenated
    - Washington
    - Well-Done Paint Company
    - Winston-Salem

Knowledge and Use of Reference Materials

QUESTION FORMAT -- DICTIONARY

Given a sample dictionary and key, answer questions about the dictionary entries.

Use the sample dictionary and the key below it to answer the exercises on this page.

SAMPLE DICTIONARY

ab·ste'mi·ous (ăb-stē'mĭ-ŭs), *adj.* Sparing in diet; refraining from free use of food and strong drink; moderate.

ac'me (ăk'mē), *n.* 1. The top or highest point. 2. The crisis or height of a disease.

brace (brās), *n.* 1. A support used to make something steady. 2. A pair. 3. An instrument used to hold tools for making holes. 4. *pl.* Suspenders. — *v.* 1. To steady something. 2. To hold together.

clan·des'tine (klăn-dĕs'tĭn), *adj.* Conducted with secrecy for an evil purpose; underhanded.

fal'chion (fôl'chŭn; fôl'shŭn), *n.* A sword.

groat (grōt), *n.* An English coin worth 4 cents.

hy'dra (hī'drȧ), *n.* 1. A tiny plant-like fresh-water animal with a more or less stationary base and a mouth and tentacles on one end. 2. Any continuing evil that has many causes and is difficult to overcome.

li'ra (lē'rä), *n.*; *pl.* LIRE(-rā), LIRAS(-räz). A coin of Italy.

prat'tle (prăt''l), *v.* To chatter; to babble like a child.

stip'u·late (stĭp'ū-lāt), *v.* To make an agreement; to bargain; to arrange as part of an agreement.

sub'ter·fuge (sŭb'tẽr-fūj), *n.* 1. A trick or scheme whereby one tries to escape from a difficulty. 2. An excuse or an evasion used to justify one's opinions.

tar'tan (tär'tăn), *n.* 1. Checkered woolen cloth, often worn in Scotland. 2. One who wears tartan; a highlander. — *adj.* Made of or like tartan. — *v.* To dress in tartan.

ze'nith (zē'nĭth), *n.* 1. That part of the heavens directly above where one stands. 2. The greatest height.

AIDS TO USING THIS SAMPLE DICTIONARY:

1. **Key words for pronunciation**: āge, ădd, ȧccount, câre, ärm, ȧsk, sofȧ; ēve, hēre, ēvent, ĕnd, silĕnt, makẽr; īce, ĭll, charĭty; ōld, ōbey, ôrb, ŏdd, cŏnnect; fo͞od, fo͝ot; out, oil; cūbe, ūnite, ûrn, ŭp, circŭs.
2. **Syllables** are indicated by a dot (·) or by the light (') or heavy (') accent mark.
3. **Abbreviations** used: *adj.*, adjective; *adv.*, adverb; *n.*, noun; *pl.*, plural; *v.*, verb.

In which sentence is a form of the word stipulate used correctly?

1) The sale should *stipulate* business.
2) The trip was a *stipulating* experience.
* 3) His salary was *stipulated* in the contract.
4) The president will be *stipulated* next Tuesday.

GRADE 7 SKILLS CLASSIFICATION -- DICTIONARY

D- USING THE DICTIONARY

D-2 Pronunciation

What is the preferred pronunciation of __________?

Which word has a silent letter?

Which is pronounced most nearly like it is spelled?

With what does the second syllable of ________ rhyme?

D-3 Syllabication

How do you divide ________ at the end of a line?

D-4 Plural Forms

What is the preferred plural form of __________?

Which form of the word ___________ best fills the blank ? "We have many __________."

D-5 Parts of Speech

What part of speech is __________?

How do you change __________ to an adverb?

Which word can be three different parts of speech?

How would you use ________ as an adjective? a noun? a verb?

D-6 Meaning

Which means most nearly the same as _________?

In which sentence is _________ used correctly?

What would you describe as ___________?

Which dictionary meaning of the word _________ would you use to illustrate __________ -- Number 1 or Number 3?

Which meaning of the word _________ was used more in the past than today?

QUESTION FORMAT -- ENCYCLOPEDIA

Given a list of guide words indicating the first and last topic contained in each volume of an encyclopedia, answer question about the location of these topics. The fourth choice is "None of these."

Vol. 1 A — Bridge
Vol. 2 Bridgeburg — Chromium
Vol. 3 Chromosome — Debussy
Vol. 4 Debye — Ezri
Vol. 5 F — Gyroscope
Vol. 6 H — Leibnitz
Vol. 7 Leicester — Mongols
Vol. 8 Mongoose — Pancake
Vol. 9 Pancevo — Roof
Vol. 10 Rook — Spiritual
Vol. 11 Spiro — Uzziel
Vol. 12 V — Zyrians

In which volume would you find the properties of magnesium, a chemical often used in making fireworks?
1) Volume 2
2) Volume 5
* 3) Volume 7
4) None of these

Which volume would give a complete list of the gods of Greek mythology?
1) Volume 1
2) Volume 2
3) Volume 3
* 4) None of these

GRADE 7 SKILLS CLASSIFICATION -- ENCYCLOPEDIA

E- USE OF ENCYCLOPEDIA

- Volume selection
  Which volume would tell you about ____________?
  If volume _______ did not have the information you wanted about _______, in what volume would you look next? After that?
  If you wanted to compare _______ and _________, in which volume would you find both discussed?

Knowledge and Use of Reference Materials

QUESTION FORMAT -- DICTIONARY GUIDE WORDS

Given a list of page numbers and guide words for each page, choose the page number on which you would find given words. The fourth choice is "None of these."

extremity	115	eyetooth
eyewitness	116	facetious
facial	117	failure
faint	118	falcon
falconry	119	falsehood

On which page would you find the word fallibility?
1) 117
2) 118
* 3) 119
4) None of these

On which page would the word external appear?
1) 115
2) 116
3) 117
* 4) None of these

GRADE 7 SKILLS CLASSIFICATION -- DICTIONARY GUIDE WORDS

G- USING DICTIONARY GUIDE WORDS

Word location
On which page would the word ________ appear?
On which page would you find the word ________?

QUESTION FORMAT -- INDEX

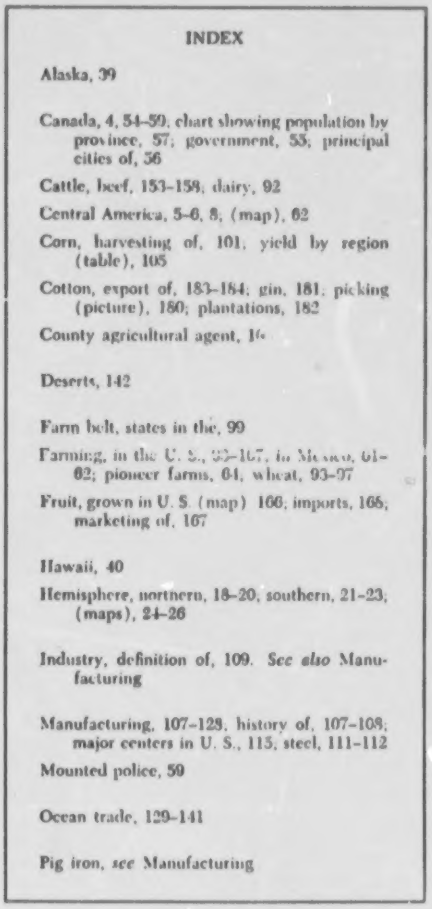
Given an index, tell which page or pages would contain certain information. The last choice is "Not given."

Ex. 1 What page might tell you how fruit gets from the grower to the consumer?
1) 166
* 2) 167
3) 168
4) Not given

Ex. 2 What page tells about Montreal, a large city in Canada?
1) 4
2) 54
3) 57
* 4) Not given

Students are instructed to decide for themselves what the right answer is rather than checking all the suggested answers against the index so that they will not waste time checking wrong answers. The instructions are as follows:

FOR EACH EXERCISE, TRY TO FIND THE CORRECT PAGE NUMBER IN THE INDEX BEFORE YOU READ THE SUGGESTED ANSWERS. IF NONE OF THE SUGGESTED ANSWERS IS RIGHT, OR IF YOU CANNOT FIND THE INFORMATION IN THE INDEX AT ALL, MARK THE FOURTH ANSWER SPACE.



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Ocean trade, 129-141

Pig iron, *see* Manufacturing

Figure K

GRADE 7 SKILLS CLASSIFICATION -- INDEX

I- USING THE INDEX See Figure K

To answer questions on use of the index, the student must interpret chapter content, use cross references, note the availability of maps, charts, tables, etc., and determine what information is not given by the index.

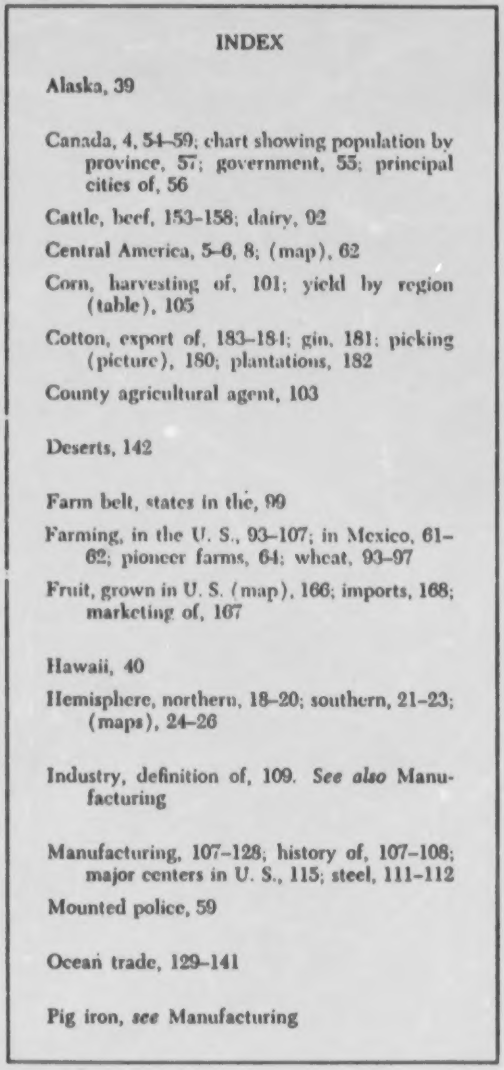
To find out which region in the farm belt produces the most corn, you would look at which page?

To what page would you turn to find out how pig iron is used in making steel?

What page would help you locate San Salvador, a city in Central America?

Which page tells which states lead in the production of milk, butter, and other dairy foods -- 93, 99, or 153? (Correct answer is not given)

Which page tells about the importing of cotton to the United States? (Information is not given in the index.)



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Ocean trade, 129–141

Pig iron, *see* Manufacturing

Figure K

QUESTION FORMAT -- KEY WORDS

Choose the best key word to use in locating given topics in encyclopedias and indexes.

The mosquito spreads diseases like malaria and yellow fever. Which key word would you choose to read about this insect?

1) malaria	3) diseases
* 2) mosquito	4) yellow fever

GRADE 7 SKILLS CLASSIFICATION -- KEY WORDS

K- USING KEY WORDS

- Choosing best key word for given topic

  If you wanted to read about skiing, the national sport of Norway, which key word would you look up?

  Which key word would you choose if you wanted to know the similarities between haddock and codfish?

  Which key word would you choose to read about the British statesman, Cecil Rhodes, who made a fortune in African diamond fields?

QUESTION FORMAT -- GENERAL REFERENCE MATERIALS

Answer questions based on knowledge of the use of general reference materials.

Where would you find an account of the Battle of Gettysburg?
1) In The Collected Speeches of Abraham Lincoln
2) In a geography text
* 3) In a history of the Civil War
4) In Handbook of Military Strategy

GRADE 7 SKILLS CLASSIFICATION -- GENERAL REFERENCE MATERIALS

R- USING GENERAL REFERENCE MATERIALS

R-7 Use of special references, such as Who's Who in America, The World Almanac, etc.

Which would give you the birthplace of the present vice president of the United States -- Who's Who or Political Review?

In which would you find figures on the U. S. shipping industry as compared with that of other countries -- a recent history of the U. S. or The World Almanac?

What information would you expect to find in the following -- Thesaurus, U. S. Population Census, Poetry Index, etc.?

R-8 Using general reference materials, use of current magazines

Which magazine would be most likely to contain reports of a recent election in a Southeast Asian country -- National Geographic or Newsweek?

R-9 Using general reference materials, use of the parts of a book: index, table of contents, etc.

Which part of an atlas will help you locate a certain map within the atlas most quickly -- the table of contents, glossary or index?

In which might you find the names of the people who had helped the author in writing a book -- the title page or the preface?

Where is the appendix located? What is it?

R-10 Using general reference materials, book selection

Which would you expect to be a biography?

Which would be on the "Fiction" shelf?

Where would you be most likely to find the poem, ____________?

What might a book called Effective Insecticides be about -- germ warfare or controlling garden pests?

Mathematics Concepts

QUESTION FORMAT

Given a mathematics exercise, choose the one correct answer from the four choices given.

If 472 is rounded to the nearest ten, what is the result?
1) 400 3) 480
* 2) 470 4) 500

GRADE 7 SKILLS CLASSIFICATION

D- DECIMALS

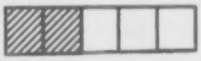
D-1 Decimals, reading and writing
How would you read 5.0003?
How would you write 8 thousandths?

D-2 Decimals, relative values
In which set are the numbers arranged from smallest to largest --
2.9, 31/10, 2 4/5, 3 or 2 4/5, 2.9, 3, 31/10?
Which of these is the smallest number --
.035, .350, or .305? the largest number?
Which of these decimals is next larger than .5 --
.634 or .643?

D-3 Decimals, rounding
Which of these numbers becomes 8 when rounded off to the nearest whole number -- 7.46, 8.52, or 7.63?

What is the result when 134.965 is rounded to the nearest whole number? to the nearest 10? to the nearest tenth? to the nearest hundredth?

D-4 Fraction, decimal, percent equivalents
In which case are the expressions not equivalent?
2/5, .40; 5/6, 87½%; or 37½%, 3/8
What part of this rectangle is shaded -- .2 or .4?



D-5 Decimals, fundamental operations: ways to perform
For which of these is 37.26 the answer -- 372.6 ÷ 10 or .3726 x 10?
In order to make the exercise 2152 x 3.1 = 6.6712 correct where in the first factor should a decimal point be placed?

D-6 Decimals, fundamental operations, estimating results
Which is the best way to estimate the answer for 3.16 x 5 4/5?
3x5 or 3x6

E- EQUATIONS, INEQUALITIES AND NUMBER SENTENCES

What could replace the △ and □ in the number sentence
75 = (△ x 4) + □ ?
Which numeral would make △ x 9 > 25 a true number sentence?
What should replace n in the number sentence ½ n = 3/4?

F- FRACTIONS

F-2 Fractions, relative values

Which of these fractions is twice as large as 2/3?

Which fraction is the largest? the smallest?

Which set of fractions is arranged in order from largest to smallest?

F-3 Fractions, equivalents

Which is a set of equivalent fractions?

What is the simplest form of the fraction __________?

Which is the correct way to find a fraction equivalent to 4/7?

In subtracting,

$$\begin{array}{r} 4\ 3/8 \\ -\ \underline{2\ 5/8} \end{array}$$

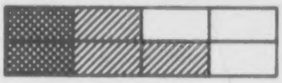
what is the way to think of 4 3/8 -- as 3 8/8 or 3 11/8?

F-4 Fractions, terms (invert, equivalent, reciprocal, mixed number, like fractions, etc.)

F-5 Fractions, fundamental operations, ways to perform

Which addition exercise can be explained by the picture below --

1/2 + 1/8 = 5/8 or 1/4 + 3/8 = 5/8?



What should replace the Δ in the equation $7/8 + 1/4 = \frac{7 + \Delta}{8}$?

Which of these is the correct way to work the example 2/3 ÷ 1/5 --

2/3 x 5/1 = 10/3 = 3 1/3 or 3/2 x 5/1 = 15/2 = 7½?

Which of these multiplication exercises is worked correctly?

$$\begin{array}{r} 21\tfrac{1}{2} \\ \underline{\times\ 5} \\ 2\tfrac{1}{2} \\ \underline{105} \\ 107\tfrac{1}{2} \end{array} \qquad \text{or} \qquad \begin{array}{r} 21\ 2/3 \\ \underline{\times\ 6\quad\ } \\ 2\quad\ \\ \underline{126\quad\ } \\ 128\quad\ \end{array}$$

Which of these exercises has the wrong answer?

$$\frac{\overset{2}{\cancel{4}}}{\underset{3}{\cancel{9}}} \times \frac{\overset{1}{\cancel{3}}}{\underset{5}{\cancel{10}}} = \frac{2}{15} \qquad \text{or} \qquad \frac{\cancel{3}}{\cancel{4}} \times \frac{\cancel{4}}{\cancel{3}} = 0$$

G- GEOMETRY

G-2 Geometry, recognizing kinds and parts of geometric figures (parallelogram, quadrilateral, pentagon, trapezoid, plane figure, etc.)

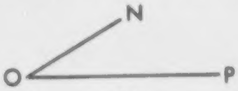
G-3 Geometry, angles and triangles

Which angles contain about 40°?

Which angles are equal?

Which have congruent angles?

What must one do in order to bisect angle NOP?



Mathematics Concepts

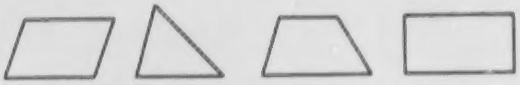
G-4 Geometry, dimensions, perimeters, and areas of polygons

What is the perimeter of a rectangle ________ x __________?

Which figure has an area of _____ square feet?

What is the area in square inches of a 3-inch square?

In which of the figures is height or altitude measured along one of the sides?



G-5 Geometry, parts and areas of circles

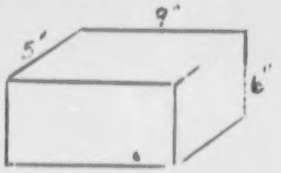
What is the diameter of a ball whose circumference is ________?

Which of the line segments is the radius?

G-6 Geometry, surface area and volume of solids

What is the total surface area, in square inches, of a cube having an area of 9 square inches on one face?

What is the volume of this box?



M- MEASUREMENT

M-6 Measurement, area and volume

What is the square footage of a lot ______ x _________?

A room having an area of 108 square feet needs how many square yards of carpet?

M-7 Measurement, liquid and dry capacity

If a gallon of paint covers 400 square feet, how much would one quart cover?

Which number sentence tells how you used the table below to find the number of fluid ounces in a quart --

8 x 2 x 2 or 8 x 2 ?

8 fl. oz. = 1 cup
2 cups = 1 pt.
2 pt. = 1 qt.
4 qt. = 1 gal.

N- NUMERATION AND NUMBER SYSTEMS

N-3 Numeration and number system, place value and expanded notation

Where in the numeral 2163 would you place a zero (0) to obtain the largest number possible?

In which of these numbers does the numeral 5 represent hundredths?

Which of these number sentences is equivalent to .314 --

.300 + .01 + .004 or .300 + .010 + .4?

Which is a way to think of 403 in working this subtraction exercise --

3 hundreds, 10 tens, and 13 ones or 39 tens and 13 ones?

$$\begin{array}{r} 403 \\ -\ 127 \\ \hline 276 \end{array}$$

Mathematics Concepts

N-5 Numeration and number systems, properties of numeration and number systems

Which of the following expressions is not equivalent to $9+(6\times3)$?

What should replace the $\square$ in the equation $[b+(-b)]+a=\square$?

Which equation does not have a solution?

$7 \div 0 = n$ or $0 \div n = 7$

N-6 Numeration and number systems, special subsets of the real numbers (positive, negative, prime, etc.)

What should replace $\square$ in $33 + \square = 17$?

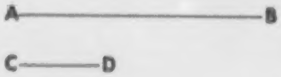
Which is a prime number?

P- PERCENTS: MEANING AND USE

Which fraction is nearest in value to 23%?

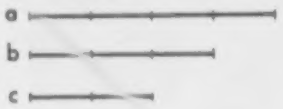
R- RATIO AND PROPORTION

If line AB represents a distance of 60 feet, about how many feet are represented by line CD?



On a map, one inch would equal how many miles if 8 inches represented approximately 200 miles?

Which ratio is 2 to 1 -- a to c, c to a, or b to c?



What is the ratio of ½ ounce to 1 pound?

S- SETS

How many numbers are in the intersection of the sets [12, 13, 14, 15] and [14, 15, 16, 17] ?

In the sequence of numbers below, each term in the sequence is the sum of the term before it plus 4. What is the 30th term in the sequence?

4, 8, 12, 16, ...

W- WHOLE NUMBERS

W-1 Whole numbers, reading and writing

How would you read 65,009,000,000?

How would you write one million, three thousand twenty-seven in numerals?

W-3 Whole numbers, rounding

10½ million is the closest approximate expression for which number?

Total revenue for The Smith Company last year was $9,686,288,852. Which is the closest approximate expression for this amount -- $9.7 billion or $9.6 billion?

What is the result when 387 is rounded to the nearest hundred?
625

What is the smallest value the number 42,000 could have had before being rounded to the nearest thousand -- 41,500; 41,550; or 41,449?

W-4 Whole numbers, partition and measurement: average

Jack scored 13, 7, 0, 22, and 8 while playing a game. What was his average score?

The average of 5 numbers is 20. What is their sum?

W-5 Whole numbers, fundamental operations: terms (factor, product, partial product, multiple, etc.)

Which is not a factor of ________?

Which are partial products in the example below?

$$\begin{array}{r} 65 \\ \underline{23} \\ 195 \\ \underline{130} \\ 1495 \end{array}$$

Mathematics Problem Solving

QUESTION FORMAT

Given a mathematics problem, choose the correct answer from the choices given. The last choice is (Not given).

Mr. Johnson applied 3-12-12 fertilizer to his lawn. This fertilizer contained 3 percent nitrogen, 12 percent phosphorus, and 12 percent potash. What was the ratio of nitrogen to phosphorus?

* 1) 1 to 4	3) 3 to 4
2) 4 to 1	4) (Not given)

A hotel room at the beach costs $22.50 per day in the winter months. It costs 1 2/3 times this rate in the summer. How much would it cost per day in the summer?

1) $37.00	3) $45.00
2) $37.10	* 4) Not given

Given a recipe, answer questions by referring to the quantities given and then solving the problems.

POTATO SALAD

2 tablespoons vinegar
5½ cups sliced, cooked potatoes
1⅔ cups sliced cucumbers
¾ cup chopped green pepper
1½ cups chopped celery
1 12-ounce can luncheon meat, cubed
1 cup salad dressing
1¼ teaspoons salt

Serves 8

Using the above recipe, how many cups of sliced cucumbers are needed for salad to serve 12?

1) 5/6	3) 2 2/3
* 2) 2½	4) (Not given)

Mathematics Problem Solving

Given a picture of priced items, answer questions by referring to the prices and then solving the problems. Instructions say, "Do not allow for sales tax."

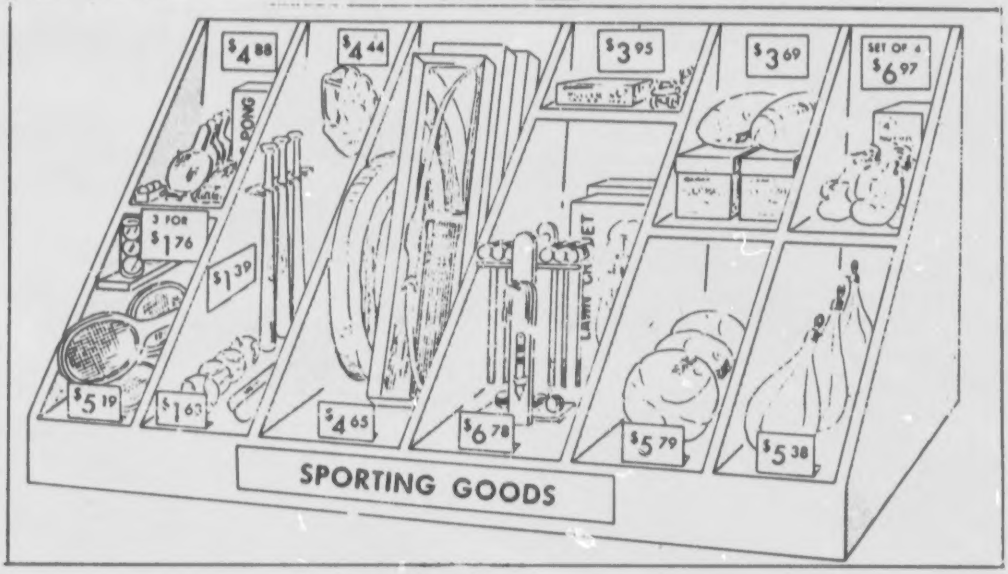

$4 88
$4 44
$3 95
$3 69
SET OF 4 $6 97
PONG
3 FOR $1 76
$1 39
LAWN CROQUET
$5 19
$1 63
$4 65
$6 78
$5 79
$5 38
SPORTING GOODS

Figure L

Don wanted a bat, glove, and softball. If he earned 95¢ each week, how many weeks would it take him to earn enough money?

1) 5	3) 9
2) 7	* 4) Not given

GRADE 7 SKILLS CLASSIFICATION

C- CURRENCY See Figure L

Ca- Currency (money), addition
Which two things could be bought for less than $10.00?

Cd- Currency (money), division
Last month roller skates were on sale for 1/5 off. How much would Jay have saved by buying his skates during the sale?

Cm- Currency (money) multiplication
The recreation center bought a dozen basketballs. What was the total cost?

Mathematics Problem Solving

Cma- Currency (money) multiplication, addition

Mr. Sims wanted to buy 2 footballs, 3 tennis rackets, and 4 punching bags for the school physical education program. How much money would all this cost?

Csd- Currency (money) subtraction, division

Jerry's purchases cost $24.95. He made a down payment of $4.95 and paid the balance at $5.00 per month. How many months did it take Jerry to finish paying for his purchases?

Cmas- Currency (money), multiplication, addition, subtraction

Nancy and Sue Smith each bought a pair of roller skates. They also bought a basketball for their brother. If they had only $10 with them, how much more money did they need to pay for their purchases?

Cds- Currency (money), division, subtraction

The store owner paid $14.28 per dozen for the softballs he was trying to sell. How much did he make on each ball?

Cas- Currency (money), addition, subtraction

Mr. Walker bought a set of boxing gloves and a punching bag for his son, George. He paid for them with a 20-dollar bill. How much change should he have received?

Cms- Currency (money), multiplication, subtraction

The store owners paid $26.40 for each box of 24 baseballs. How much more money did they receive for each box of baseballs than they paid for it?

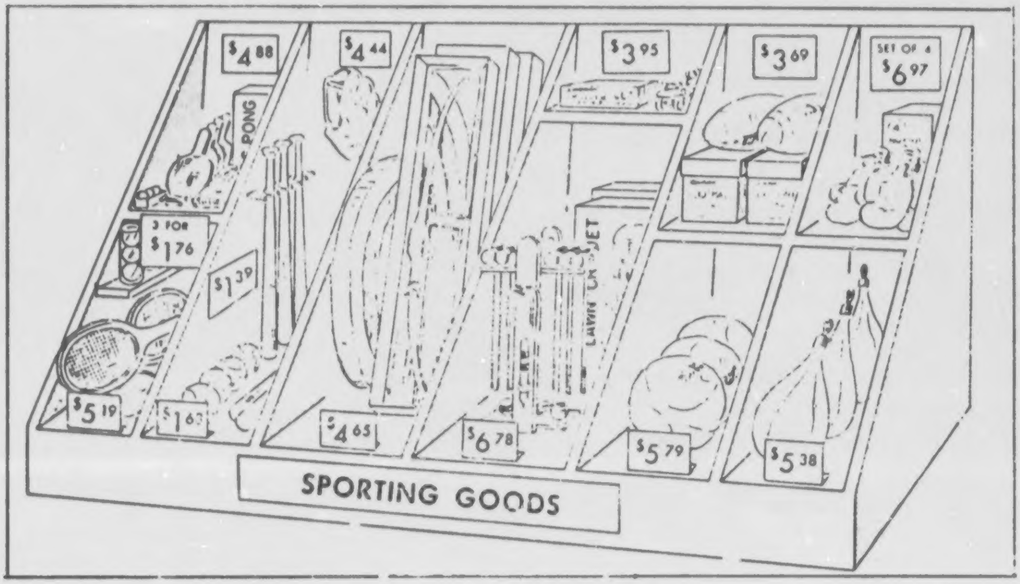


Figure L

Mathematics Problem Solving

D- DECIMALS

Ds- Decimals, subtraction

The Miller's lot was 48.7 feet wide. Their neighbor's lot was 50.0 feet wide. How many feet narrower was the Miller's lot?

F- FRACTIONS

Fa- Fractions, addition

Jackie needed ½ yard of material to make a dress for her doll. She needed 5/8 yard of the same material to make a coat. How many yards of material did she need in all?

Fm- Fractions, multiplication

Terry's father agreed to pay 3/4 of the cost of a $7.92 model Terry wanted to buy. How much did his father pay?

Fs- Fractions, subtraction

Judy's dog now weighs 18 3/4 pounds. He weighed only 15 7/8 pounds when Judy got him. How many pounds has the dog gained?

Fd- Fractions, division

Paul rode his mini-bike a distance of 20 miles in 1½ hours. What was his average rate in miles per hour?

Fdm- Fractions, division, multiplication

Ellen wants to make beaded headbands to sell at the school fair. If she has 7 1/3 yards of ribbon, and makes 11 headbands, how many inches long is each headband? (1 yard = 36 inches)

M- MEASUREMENT

Ms- Measurement, subtraction

In the frog-jumping contest at the school fair, Bill's frog jumped 4 feet 11 inches on his first jump. His second jump was 7 feet 3½ inches. How much farther than his first jump was his second jump ?

P- PERCENTS

Pm- Percents, multiplication

Mr. Davis' electric bill for January was $19.60. If he paid it by February 10, he would receive a 7½% discount. How much of a savings would that be?

Pms- Percents, multiplication, subtraction

The Western Realty Company helped with the sale of Mr. Johnson's house. For their services, Mr. Johnson paid the realty company 5% commission on the sale price of $20,500. After the commission was paid, what was the amount Mr. Johnson received for the house?

Pad- Percents, addition, division

The Rock Haven Boys' Club had 64 members. Of those participating in their fund raising drive, 17 sold candy, 14 sold calendars, and 25 sold raffle tickets. What percent of the membership participated in the drive?

R- RATIO AND PROPORTION

A recent survey showed that the number of books borrowed annually from a public library was 262,473. Of that number, 32,291 were fiction. About what fraction of the total number of books borrowed were fiction?

W- WHOLE NUMBERS

Ws- Whole Numbers, subtraction

The elevation of the city of Denver is 5,280 feet. Moffat Tunnel, several miles from Denver, has an elevation of 9,239 feet. How many feet higher than Denver is Moffat Tunnel?

Wdm- Whole Numbers, division, multiplication

Mr. Harrington wants to paint his living room. The total area is 180 square feet. The paint he has chosen costs $7.00 for 60 square feet of coverage. How much is the cost of enough paint for his living room?

Wad- Whole Numbers, addition, division

Mr. Wilson is the driver of school bus No. 312. Every day he has 66 passengers in the morning, 36 passengers at noon, and 66 passengers after school. What is the average number of passengers he carries?

Vocabulary

QUESTION FORMAT

Given a phrase with one word in heavy type, choose one of the four answers that has most nearly the same meaning as the word in heavy type. (Shown below underscored.)

A tall building
* 1) high
2) wide
3) low
4) new

Broke it deliberately
1) by accident
2) into pieces
* 3) on purpose
4) with a loud noise

GRADE 7 SKILLS CLASSIFICATION

This is the only one of the eleven subtests for which no detailed classification of the skills tested is provided. The following general skills are tested:

1. The use of tools involved in word recognition (phonics, context clues, etc.)
2. Knowledge of the meanings of words
3. Sensitivity to fine differences in meanings and judgment in choosing the most appropriate word in a given context

Student is asked to identify a synonymous word or phrase for a given noun, verb, adjective, or adverb such as:

Nouns
Kinds of literature
To leave in disgrace
The source of the trouble

Verbs
Doesn't vary much
Bewildered by her reply
To shirk his duty

Adjectives
Contaminated food
Unceasing opportunity
The condensed edition

Adverbs
Spread meagerly
Very likely broken
Previously spoke

TEACHER GUIDE ON FORMAT AND SKILLS CLASSIFICATION OF THE IOWA TESTS OF BASIC SKILLS (ITBS)

GRADE 9

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INTRODUCTION

This booklet contains information on the ITBS Format and Skills Classification for Grade 9. The purpose of this booklet is not to inform teachers of what the test items are; rather, the format items are given to provide teachers with examples of formats to which they can expose students so that students will not be handicapped by format-related problems. The skills classification list is given -- along with suggested questions to use with students -- to provide teachers with a clear idea of the kinds of cognitive skills required of the students by the tests.

There is no intent to "teach to the test" nor to give "last minute" training to students. Nor is there any intent to "prescribe curriculum." Rather, the booklet familiarizes students with the mechanics involved in test-taking and familiarizes teachers with ITBS skills as they relate to the wider, year-long scope of the MCPS curriculum.

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QUESTION FORMAT AND SKILLS CLASSIFICATION (Grade 9)

Reading Comprehension

QUESTION FORMAT

Given a reading selection, answer questions based on the information given. Selection may be a single paragraph, several paragraphs, several numbered paragraphs (¶), or a poem.

> Travel at the turn of the nineteenth century was difficult, slow, and dangerous. The best road throughout its course, in the entire country, was the one between Boston and New York; yet the public conveyance which made regular trips with relays of horses usually took an entire week for the journey of roughly 250 miles, even in the most favorable season of the year. The stage was rickety, the horses' "harness" made of ropes. One team hauled the stage only eighteen miles. The stop for the night was made at ten o'clock, the start next morning at half-past two. Over parts even of this, the finest long highway in the United States, the stage had to struggle against rocks and to escape precipices. The passengers often had to help the driver lift the coach out of the swamp. "I knew not which to admire most in the driver, his fearlessness or his skill," testified one traveler. "I cannot understand how he avoided twenty times dashing the carriage to pieces."

Which of the following best describes the way in which this paragraph is developed?

1) The writer presents both sides of an argument, and lets the reader draw his own conclusions.
2) The writer tells a story, and then points out the lesson that it teaches.
3) The writer gives several unrelated facts, and then ties them together in a summary sentence.
* 4) The writer makes a general statement of fact, and then gives an example to support it.

Reading Comprehension

GRADE 9 SKILLS CLASSIFICATION

D- (Details) TO RECOGNIZE AND UNDERSTAND STATED OR IMPLIED FACTUAL DETAILS AND RELATIONSHIPS

D-1 To recognize and understand important facts and details

Who? When? Where? Which? How many?

D-2 To recognize and understand implied facts and relationships

How? Why? In what way?
What ought to happen?
Which is most likely to ________?
What is a reasonable explanation for ___?

D-3 To deduce the meaning of words or phrases from context

What is meant by the word "________"?
What word might be used instead of "___________"?
What is meant by the expression "__________" in this story?
What do people do when they "__________"?
What is suggested by the statement "__________"?

P (Purpose) - TO DEVELOP SKILL IN DISCERNING THE PURPOSE OR MAIN IDEA OF A PARAGRAPH OR SELECTION

P-1 To detect the main purpose of a paragraph or selection

What is the author's purpose in this article?
What is the purpose of paragraph 5?
What is the main consideration of the article?
What is the main purpose of the poem?
What conclusion is the reader to draw from the final paragraph?

P-2 To recognize the main idea or topic of a paragraph or selection
- What is the best name for this story?
- What are the reasons for ...?
- Which best summarizes the information contained in paragraph 4?
- What is the one most important thing to remember from this story?
- What is the topic sentence of each paragraph?

O- (Organization) TO DEVELOP ABILITY TO ORGANIZE IDEAS

O-1 To recognize common elements or parallel topics in incidents or paragraphs
- Which paragraphs describe ___________? Which do not?
- What are the two subtopics of paragraph 2?
- Which paragraph could be eliminated with least loss to the main purpose of the story?

O-2 To recognize proper time sequence
- Which of these things happened last?
- What is the first step in _________?
- What is the order in which __________?
- Where in the article would you place a new paragraph describing ____________?

E- (Evaluation) TO DEVELOP SKILL IN EVALUATING WHAT IS READ

E-1 To develop generalizations from a selection
- Why is "__________" a good name for this story?
- Which of these statements is true about __________?
- What does this poem show?
- The main character of this story would agree with which of these statements?
- Which of these familiar sayings is illustrated by this story?

Reading Comprehension

E-2 To recognize the writer's viewpoint, attitude or intention

Why did the poet choose "________" for the name of the poem?
Which is probably the reason the author felt ________?
What is the writer's attitude toward __________?
With which of these statements would the author agree? disagree?
What is the writer's solution to the problem?

E-3 To recognize the mood or tone of a selection

How does the writer make you feel?
How should this poem be read -- fast, slowly, fast at first, then slowly, etc.?
Which words have a very soft sound?
Is this poem angry, peaceful, sad, etc.?

E-4 To recognize outstanding qualities of style or structure

Why are there quotation marks around the words "___________"?
Why are the words _________ in italics?
What kind of words does the author use -- sarcastic, exaggerating, descriptive?
Where might this reading passage be found -- in a newspaper, in a scientific report, or in a novel?
The effectiveness of the final paragraph is increased by the author's use of which of the following: unusual sentence structure or repetition of the original theme?
In which line is the climax to the story?

Language Skills

Spelling

QUESTION FORMAT

Given four words, pick the one that is spelled incorrectly. A fifth choice is (No mistakes).

Ex. 1
1) vicinity
2) miserable
* 3) disipline
4) allegiance
5) (No mistakes)

Ex. 2
1) acquire
2) executive
3) reduction
4) analyze
* 5) (No mistakes)

GRADE 9 SKILLS CLASSIFICATION

D- DOUBLE LETTER
Double letter eliminated (equipped-equiped)
Unnecessary double letter (altogether-alltogether)
Combination of above (recommend-reccomend)

I- INTERCHANGED LETTERS (belief-beleif)

L- L, EL, LE SUBSTITUTIONS
puzzle-puzzel, barrel-barrle, folk-fok

M- MISCELLANEOUS AND MULTIPLE ERRORS
refrigerator-refridgerator, courteous-courtious, religious-religous

N- NO MISTAKES
See Ex. 2 in Question Format

Spelling

O- OMITTED LETTERS
efficiency-efficency, candidate-canidate, autumn-autum

P- PLURAL FORMS
echoes-echos, thieves-theifs

R- R, ER, OR SUBSTITUTIONS
entrance-enterance, perform-preform, laboratory-labratory

S- S, SC, SH, C, CH, T, Z SUBSTITUTIONS
capacity-capasity, exercise-excerize, phrase-phraze, absence-absense, license-lisence, convention-convension

T- T, ED SUBSTITUTIONS
congratulate-congradulate, interval-inerval, often-ofen, advantage-advanage

V- VOWEL SUBSTITUTIONS
Single vowels - pursue-persue, greatful-grateful
Diphthongs- detail-detale

Y- Y, EY, I SUBSTITUTIONS
mystery-mistery, heavy-heavey, plentiful-plentyful

Language Skills

Capitalization

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in capitalization appears. The fourth choice is (No mistakes).

Ex. 1 * 1) In the south the soil was
2) rust-colored, not black like
3) that in most of the Midwest.
4) (No mistakes)

Ex. 2 1) An immigrant, Jacob Riis,
2) wrote The Making of an American;
3) it is his autobiography.
* 4) (No mistakes)

Given a letter, choose the line in which a mistake in capitalization appears.

Ex. 3 * 1) 146 Seventh ave.
2) Park City, Indiana
3) May 23, 1962
4) (No mistakes)

Ex. 4 1) Marshall Field and Company
2) Chicago, Illinois
* 3) Dear sirs:
4) (No mistakes)

Ex. 5 1) The angora sweater that
* 2) I ordered from your Store was
3) badly damaged on arrival.
4) (No mistakes)

Ex. 6 1) The package had been broken
2) open. Should I enter a claim
3) at our local post office?
* 4) (No mistakes)

Ex. 7 1) My order was No. 16372.
* 2) Very Truly Yours,
3) Sandra Martin
4) (No mistakes)

Capitalization

Given an advertisement, announcement, or notice containing partial sentences or phrases, choose the line in which a mistake in capitalization appears.

For Sale—Miscellaneous

Ex. 8 * 1) Used remington portable
2) typewriter. Machine and case
3) in good condition. Reedville 3714.
4) (No mistakes)

Ex. 9 1) Three-speed record player and
* 2) radio combination. will take
3) highest offer made by 9:00 P.M.
4) (No mistakes)

Ex. 10 * 1) Outboard motor and Aluminum
2) boat for sale—$300. Seats
3) four. Can be seen at 114 Handy St.
4) (No mistakes)

GRADE 9 SKILLS CLASSIFICATION

1. THE PRONOUN I

3. WORDS INDICATING FAMILY RELATIONSHIP, WHEN USED SPECIFICALLY AND WITHOUT A POSSESSIVE PRONOUN (Uncle Joe, Grandmother Williams)

5. FIRST WORD OF A SENTENCE

6. FIRST WORD IN A QUOTATION

7. IN WRITING LETTERS, THE FIRST WORD AND THE WORD WHICH STANDS IN PLACE OF THE PERSON'S NAME IN THE SALUTATION (Dear Sir, Dear Madam)

15. NAMES OF COUNTRIES AND CONTINENTS

16. NOUNS WHICH DESIGNATE DEFINITE GEOGRAPHIC PORTIONS OF THE COUNTRY
    We go back East to visit often.
    On a trip through the Southwest, we bought a hooked rug.

17. NAMES OF STREETS, AVENUES, ETC.

19. NAMES OF BUILDINGS, SCHOOLS, PARKS

20. NAMES OF RACIAL, POLITICAL, OR RELIGIOUS BODIES (Oriental, Socialist, Christian)

21. PROPER ADJECTIVES (Chinese food, German boy, Dutch shoes)

22. NAMES OF SPECIFIC ORGANIZATIONS (Red Cross, Salvation Army, Riverside Boys' Club, Western Steel Company)

23. NAMES OF IMPORTANT HISTORICAL PERIODS OR EVENTS (Korean War, French Revolution, Battle of Bull Run)

24. SPECIFIC BRAND NAMES
You would expect a bike made by Speedo to be built for speed.
Our new shampoo is called Bubble Up, and it really does.
I would like to sell my Royalton typewriter and buy a better brand.

25. NAMES OF BODIES IN THE SOLAR SYSTEM (Jupiter, Big Dipper, Milky Way)

26. ALL EXPRESSIONS USED FOR THE DEITY AND BIBLE (Old Testament, Bible stories, Lord)

OV- OVER-CAPITALIZATION
The First of June is an important date for us.
That little boy is the son of my Aunt. That makes him my Cousin.
The Baseball game starts at 4:00 p.m.
I want to be a Doctor (Nurse, Teacher) when I grow up.

N- NO MISTAKES
See Ex. 2 and Ex. 6 in Question Format

Language Skills

Punctuation

QUESTION FORMAT

Given a sentence cluster, choose the line in which a mistake in punctuation appears. The fourth choice is (No mistakes).

Ex. 1 1) I asked Ray if he knew my
2) cousin, but he answered,
* 3) "No I have never met him."
4) (No mistakes)

Ex. 2 1) The American Legion will hold
2) its annual bazaar the first
3) week of October, I believe.
* 4) (No mistakes)

Given a letter, choose the line in which a mistake in punctuation appears.

Ex. 3 * 1) 17 Mt Carmel Road
2) Springdale, Ohio
3) March 3, 1954
4) (No mistakes)

Ex. 4 * 1) Northeast Seed Co
2) Box 4119
3) New York City, N. Y.
4) (No mistakes)

Ex. 5 * 1) Gentlemen;
2) Please send me the collection of
3) seeds that you advertised for $1.00.
4) (No mistakes)

Ex. 6 1) I enclose a money order for that amount.
2) Very truly yours,
* 3) Richard Thornton.
4) (No mistakes)

Punctuation

Given an advertisement, announcement, or notice containing partial sentences or phrases, choose the line in which a mistake in punctuation appears.

NOTICES

Ex. 7
1) For Sale: Used
* 2) roller skate's. Good
3) condition. $5.00. See Sally.
4) (No mistakes)

Ex. 8
1) For sale: Three-speed
2) boy's bike. Will take best
3) offer. Call Bill after 3:00 p.m.
* 4) (No mistakes)

Ex. 9
1) Giveaways: Tropical fish, tank,
2) filter, and food. Moving to
* 3) Akron Ohio. Call Joe at 214-6212.
4) (No mistakes)

GRADE 9 SKILLS CLASSIFICATION

1. USE OF PERIOD
    - 1a. Use of period, at the end of complete declarative sentence
    - 1b. Use of period with abbreviations
2. USE OF QUESTION MARK
3. USE OF COMMA
    - 3a. Use of comma, to separate words in a series
    - 3b. Use of comma, to separate names of city and state
    - 3d. Use of comma, at end of complimentary close of a letter (Yours truly,)
    - 3f. Use of comma, to set off introductory or parenthetical adverbs (however, nevertheless, therefore, whereas, consequently)
    - 3g Use of comma to set off "yes" and "no"
    - 3h. Use of comma to set off words in apposition (Sam Jones, our best player, fouled out.)
    - 3i. Use of comma, in a compound sentence, to set off independent clauses joined by such conjunctions as "and" and "but", if a change of subject takes place.

        His reasoning was correct, but his answer was wrong.

        It had been years since we were there, and the owner didn't recognize us.
    - 3j. Use of comma, in direct discourse, to separate quotation from rest of sentence

        "Hello, everyone," we called.

        "How do you feel," she asked, "now that you've finished the book?"
    - 3k. Use of comma, in direct address, to set off name of person addressed.

        Carol, please come here.

3l. Use of comma, to set off dependent clauses and phrases preceding the main clause

Although the sun was shining brightly in a bright blue sky, it was very cold.

3m. Use of comma, to set off non-restrictive phrases or clauses

Dan fell, knocking his chair into the wall behind him.

"I don't understand the math," said Jack, shaking his head.

4. USE OF APOSTROPHE

4a. Use of apostrophe, in contractions (I've, hasn't)

4b. Use of apostrophe, in forming the possessive of nouns (Sally's hair, doctor's house)

5. USE OF DOUBLE QUOTATION MARKS

5a. Use of double quotation marks, before and after a direct quotation

5b. Use of double quotation marks, with titles

5c. Use of double quotation marks, position with reference to other punctuation

Judy asked, "Do you like your new bike?"

The timer yelled, "Go!" to start the race.

6. USE OF COLON

6a. Use of colon, after salutation of a business letter (Madam: Sirs:)

6b. Use of colon, preceding an enumeration of items

We have our choice of four colors: red, brown, green, blue, or orange.

7. USE OF SEMICOLON TO SEPARATE CO-ORDINATE CLAUSES NOT JOINED BY A CONJUNCTION

A library is supposed to be a quiet place; yet there are people who disturb others by talking loudly.

8. USE OF EXCLAMATION MARK

Gary screamed, "Look out! Move away! The train is coming!"

OV- OVER-PUNCTUATION

Ov-1 Over-punctuation, use of comma to mark a trivial phrase

John was unhappy because it seemed, to rain every time he went to the beach.

Ov-2 Over-punctuation, use of comma to set off restrictive clauses or phrases

Her costume was so realistic no one could tell, who she was.

Ov-4 Over-punctuation, use of apostrophe in plurals of nouns

The boy's spent three hours mowing the lawn.

Ov-5 Over-punctuation, use of apostrophe in possessive pronouns

Their house is larger than our's.

Ov-6 Over-punctuation, use of apostrophe in words ending in s

He yell's at everyone but no one ever pay's much attention to it.

Ov-7 Over-punctuation, use of quotation marks with indirect quotation and unquoted matter

The teacher said that "Carol was sick."

NO MISTAKES

See Ex. 2 in Question Format

Language Skills

Usage

QUESTION FORMAT

Given three numbered sentences, choose the one that has a mistake in usage. The fourth choice is (No mistakes).

Ex. 1 1) Those are the boys who chased Frank last week.
* 2) I could have spoke to him, but I was scared.
3) Which of these two scarves do you think has the prettier pattern?
4) (No mistakes)

Ex. 2 1) Even though Elaine disguised her voice, I knew it was she.
2) The baby would fall asleep if you boys would be quieter.
3) Mr. Jones asked us children not to run across his newly seeded lawn.
* 4) (No mistakes)

GRADE 9 SKILLS CLASSIFICATION

1. USE OF PRONOUNS
   - 1a. Use of pronouns, case forms
     They told we boys to come back the day after tomorrow.
     Us pupils in grade six are collecting money for the Red Cross.
   - 1b. Use of pronouns, agreement with antecedent
     Even though Carol disguised her voice, I knew it was her.
     Each actor in the play has their part memorized.
   - 1d. Use of pronouns, miscellaneous forms commonly confused
     The people which live across the street pay me to mow their lawn.
     The girls pulled the wagon all by theirselves.

2. USE OF VERBS
   - 2a. Use of verbs, past tense
     The water was so cold that my feet become numb in five minutes.
     The dog sniffed the food we give him, but he wouldn't eat any of it.
   - 2b. Use of verbs, the past participle
     Before we went to the ranch, Nancy and I had never rode horseback.
     The horn must have shook loose when we rode over the bumps.
     I wish I had not drank so much water.
   - 2c. Use of verbs, agreement of subject and verb
     We have a hammer, but there isn't any nails in the house.
     There was a hard frost in October, but the next few weeks was warm again.
   - 2d. Use of verbs, miscellaneous forms incorrectly used.
     We must have set there and talked for two hours.
     A tube must of burned out in our television set.
     Leave me see that.

Usage

3. USE OF ADJECTIVES AND ADVERBS
    3a. Use of adjectives and adverbs, forms commonly confused.
        That milk smells badly.
        Bobby Nelson can't skate very good.
    3b. Use of adjectives, articles (a, an, the)
    3c. Use of adjectives and adverbs, comparative and superlative forms
        He told many stories, each more funnier than the last.
        This was the most slow train we ever rode.

4. AVOIDANCE OF DOUBLE NEGATIVE
        I couldn't hardly move my sore arm.
        I couldn't find any berries in the woods neither.

5. AVOIDANCE OF REDUNDANCIES
        Let's us sit on the porch where it is cool.
        After we had finished painting the bench red, Jeanne she decided it should be blue.
        What will happen if I push this here button?

6. HOMONYMS COMMONLY CONFUSED
        I don't know how a fish could sleep with it's eyes open.
        What kind of refreshments did the girls have at there party?
        Anyone who's book is not returned today will get an overdue notice.
        If your going to be here, please let us know.

7. MISCELLANEOUS WORD FORMS
        We will have to train the puppy not to chew the carpet, else Mom will give him away.
        If I had of known you wanted to go, I could have gotten you a ticket.

N- NO MISTAKES
        See Ex. 2 in Question Format

Work Study Skills

Map Reading

QUESTION FORMAT

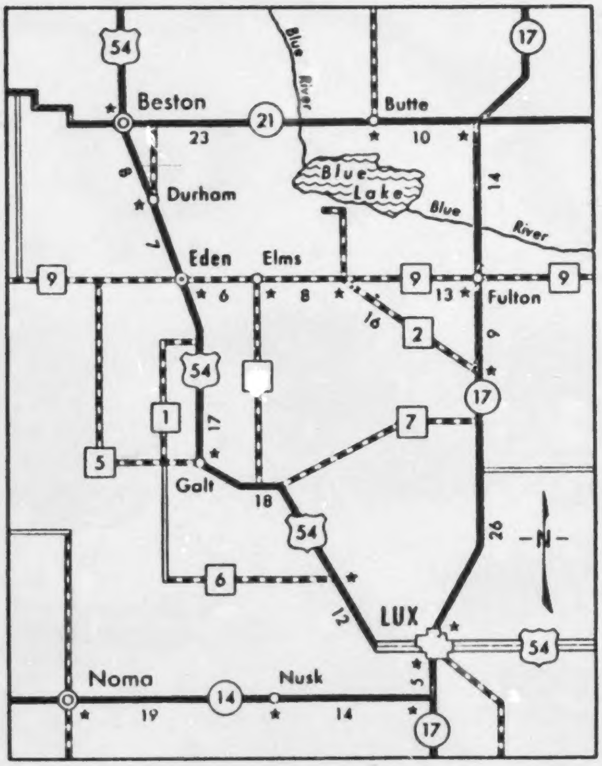
Given a map and key, answer questions about the things shown. Maps may be of city sections, countries, parks, schools, highways and roads, camps, etc.

Which of these cities is closest to Blue Lake?

1) Eden
2) Galt
3) Noma
* 4) Butte

When numerous cities, towns, countries, etc., are shown on a map, the names of the cities and towns are arranged in alphabetical order, beginning near the top of the map, to help students find them quickly. Students are informed of this as follows:

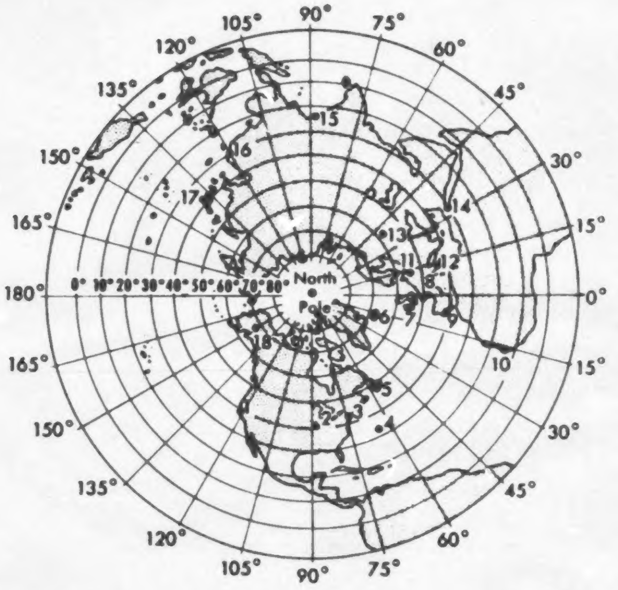
The map on this page is a part of a road map. To help you to find any city or town shown on the map, the names of the cities and towns appear in alphabetical order, beginning near the top.


54
Blue River
17
Beston
21
Butte
23
10
14
Blue Lake
Durham
Blue River
Eden
Elms
9
6
8
9
13
Fulton
9
16
2
54
17
1
7
5
Galt
18
54
26
N
6
12
LUX
54
Noma
14
Nusk
19
14
17

Map Reading

Given a polar map, answer questions about the things shown.

The polar map below shows the North Pole and eighteen cities with important airports. These are numbered in a counter-clockwise direction and are identified in the key below the map.



105°
90°
75°
120°
60°
135°
45°
150°
30°
165°
15°
180°
0°
165°
15°
150°
30°
135°
45°
120°
60°
105°
90°
75°
0° 10° 20° 30° 40° 50° 60° 70° 80°
North Pole
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18

1. San Francisco
2. Chicago
3. New York
4. Bermuda
5. Gander, Newfoundland
6. Reykjavik, Iceland
7. Shannon, Ireland
8. Paris, France
9. Lisbon, Portugal
10. Dakar, West Africa
11. Berlin, Germany
12. Rome, Italy
13. Moscow, U.S.S.R.
14. Cairo, Egypt
15. Calcutta, India
16. Hong Kong, China
17. Tokyo, Japan
18. Fairbanks, Alaska

When it is midnight in Chicago (2), in which city is it nearest noon?

1) Calcutta (15)	3) Hong Kong (16)
* 2) Paris (8)	4) Tokyo (17)

Which of these is located closest to the point 45° North Latitude, 15° East Longitude?

1) Lisbon (9)	3) Berlin (11)
2) Dakar (10)	* 4) Rome (12)

Which of these is farthest east of the Prime Meridian?

1) Moscow (13)	3) Cairo (14)
2) Calcutta (15)	* 4) Hong Kong (16)

Map Reading

GRADE 9 SKILLS CLASSIFICATION

1. ABILITY TO ORIENT MAP AND DETERMINE DIRECTION
   1b. Ability to Orient Map and Determine Direction, to determine direction from parallels or meridians

See Figure A

How can you tell that Jolar is farther west than Manton?

Which is directly south of Egan -- Luna or Koshin? How can you tell?

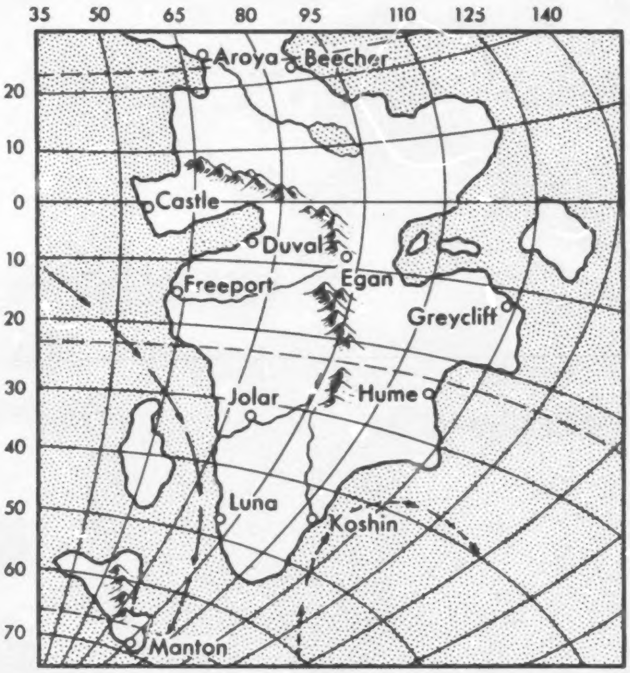

35
50
65
80
95
110
125
140
20
10
0
10
20
30
40
50
60
70
Aroya
Beecher
Castle
Duval
Egan
Freeport
Greycliff
Hume
Jolar
Luna
Koshin
Manton

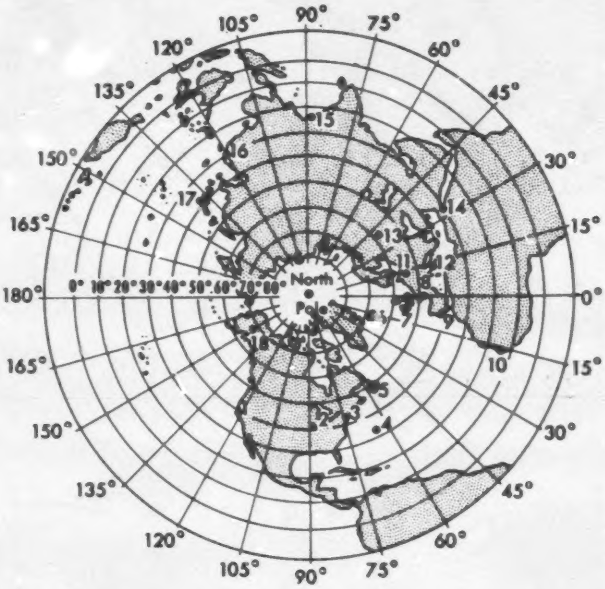
Figure A

See Figure B

A flight straight west from Portugal (9) would take you closest to which of the following -- Chicago (2), Iceland (6), Ireland (7), or Berlin (11)?

What direction is Dakar, West Africa, from Iceland -- East, South, Southeast, Southwest?

The polar map below shows the North Pole and eighteen cities with important airports. These are numbered in a counter-clockwise direction and are identified in the key below the map.



1. San Francisco
2. Chicago
3. New York
4. Bermuda
5. Gander, Newfoundland
6. Reykjavik, Iceland
7. Shannon, Ireland
8. Paris, France
9. Lisbon, Portugal
10. Dakar, West Africa
11. Berlin, Germany
12. Rome, Italy
13. Moscow, U.S.S.R.
14. Cairo, Egypt
15. Calcutta, India
16. Hong Kong, China
17. Tokyo, Japan
18. Fairbanks, Alaska

Figure B

1c. Ability to Orient Map and Determine Direction, to determine direction of river flow or slope of land
In which direction does the ________River flow?
Traveling upstream on the ________River, you would come to which city first?
Which is a tributary?
Which city would you expect to be of higher elevation, ______ or ________?
Why?

Map Reading

2. ABILITY TO LOCATE AND/OR DESCRIBE PLACES ON MAPS AND GLOBES

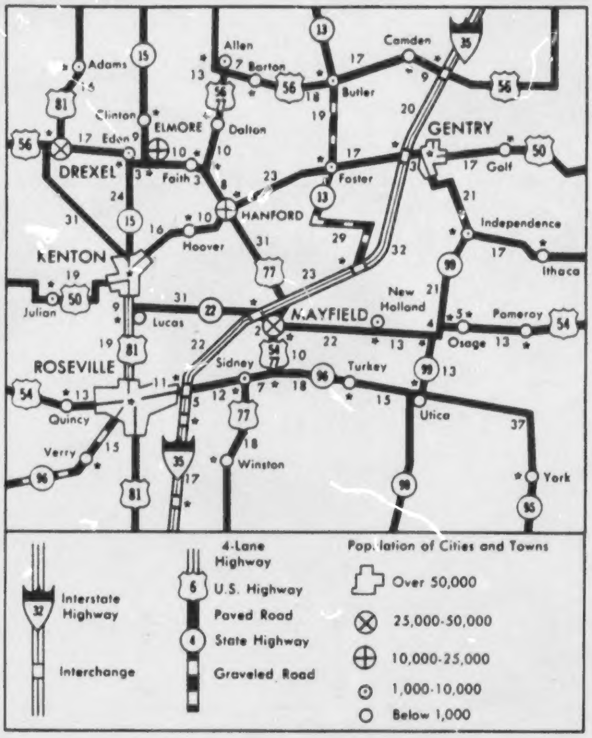
2b. Ability to Locate and/or Describe Places on Maps and Globes, through the use of a key

See Figure C

How many of the towns shown along U.S. Highway 50 are above 10,000 in population?

Which of the following towns is the largest -- Hanford, Mayfield, or Butler?

What kinds of roads are those that come into Verry?



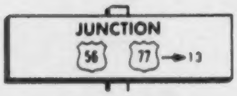
Adams
Allen
Barton
Camden
Clinton
ELMORE
Dalton
Butler
GENTRY
Golf
Eden
DREXEL
Faith
Foster
HANFORD
Independence
Hoover
KENTON
Ithaca
Julian
New Holland
Lucas
MAYFIELD
Pomeroy
Osage
ROSEVILLE
Sidney
Turkey
Quincy
Utica
Verry
Winston
York
4-Lane Highway
Interstate Highway
Interchange
U.S. Highway
Paved Road
State Highway
Graveled Road
Population of Cities and Towns
Over 50,000
25,000-50,000
10,000-25,000
1,000-10,000
Below 1,000

Figure C

2c. Ability to Locate and/or Describe Places on Maps and Globes, through the use of distance and direction

See Figure C

distance: Where might this highway sign be located?



JUNCTION
56
77
13

direction: If you were traveling southeast on U. S. Highway 81 from Drexel, which city would you come to first?

distance and direction: What happens to U.S. Highway 56 three miles east of Faith?

2d. Ability to Locate and/or Describe Places on Maps and Globes, through the use of latitude or longitude

Where would you be if you were at the point 20° N, 98° E?

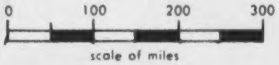
Which is the most accurate location of ____________, -- 18° N, 5° W, or 18° N, 10° E?

Which is not shown -- the equator, the Arctic Circle, or the Antarctic Circle?

Is the city of __________ located on or near the Tropic of Capricorn or the Tropic of Cancer?

3. ABILITY TO DETERMINE DISTANCES

3b. Ability to Determine Distances, determining distances by using a scale of miles


0
100
200
300
scale of miles

3c. Ability to Determine Distances, determining distances on a globe (Necessitates knowing approximately how many miles are represented by each degree longitude and latitude on any globe)

See Figure D

About how many miles is it from the 65° line to the 70° line?

About how many miles is Zulu from Bango?

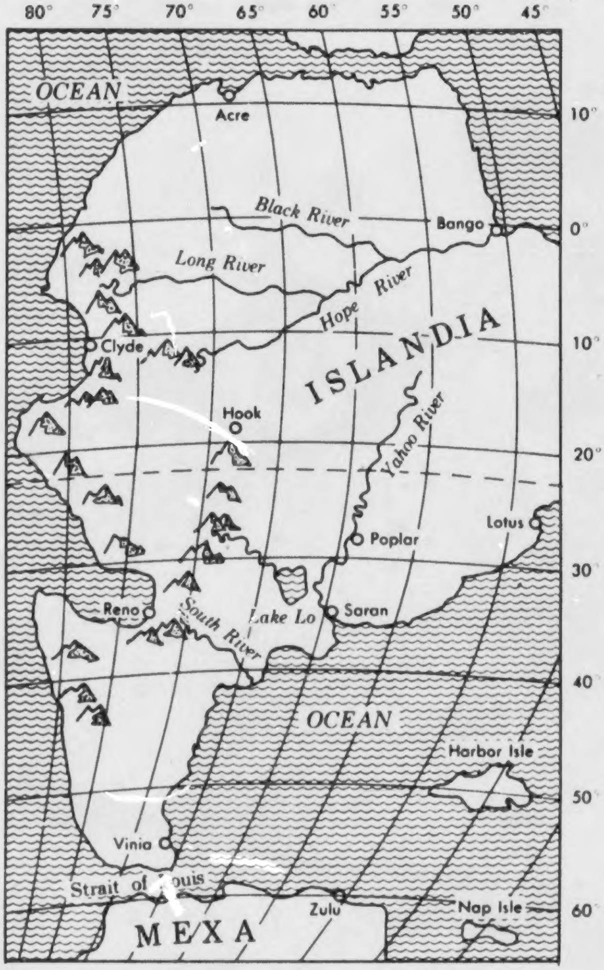

80°
75°
70°
65°
60°
55°
50°
45°
10°
0°
10°
20°
30°
40°
50°
60°
OCEAN
Acre
Black River
Bango
Long River
Hope River
ISLANDIA
Clyde
Hook
Yahoo River
Lotus
Poplar
Reno
South River
Lake Lo
Saran
OCEAN
Harbor Isle
Vinia
Strait of Louis
Zulu
Nap Isle
MEXA

Figure D

206

3d. Ability to Determine Distance, comparing distances

What is the shortest route to travel from __________ to __________?

How much farther will you drive going from __________ to __________ if you take Routes __________, __________, and __________ instead of Highway __________ and Route __________?

How far is it from __________ to __________ by the shortest route?

How many miles would be saved in going from __________ to __________ by taking the graveled road rather than Highway __________ and __________?

4. ABILITY TO DETERMINE OR TRACE ROUTES OF TRAVEL

Which of these highways ends at __________?

The junction of Routes __________ and __________ is at which city?

For how many miles do Highways __________ and __________ share the same roadway?

Where does Route __________ become an alternate for Route __________?

What happens to Highway __________ southwest of __________?

Which city is on the most direct route from __________ to __________?

5. ABILITY TO UNDERSTAND SEASONAL VARIATIONS, SUN PATTERNS, AND TIME DIFFERENCES

In which of these cities is winter clothing worn all year round?

In which of these cities does the sun set first?

When it is noon in __________, in which of these cities is it midnight? early evening?

During which month would __________ have the shortest days?

6. ABILITY TO READ AND COMPARE FACTS FROM ONE OR MORE PATTERN MAPS

See Figure E

Which state mines between 15 and 20 thousand tons of coal each year?
Which city is located at the foot of a mountain?
The greatest amount of low land shown on the map is where?
What is the total wheat production of Elan, in tons?
What do the cities of Clark and Incus have in common?
Which product is most likely to be sent from Clark to Hopi?

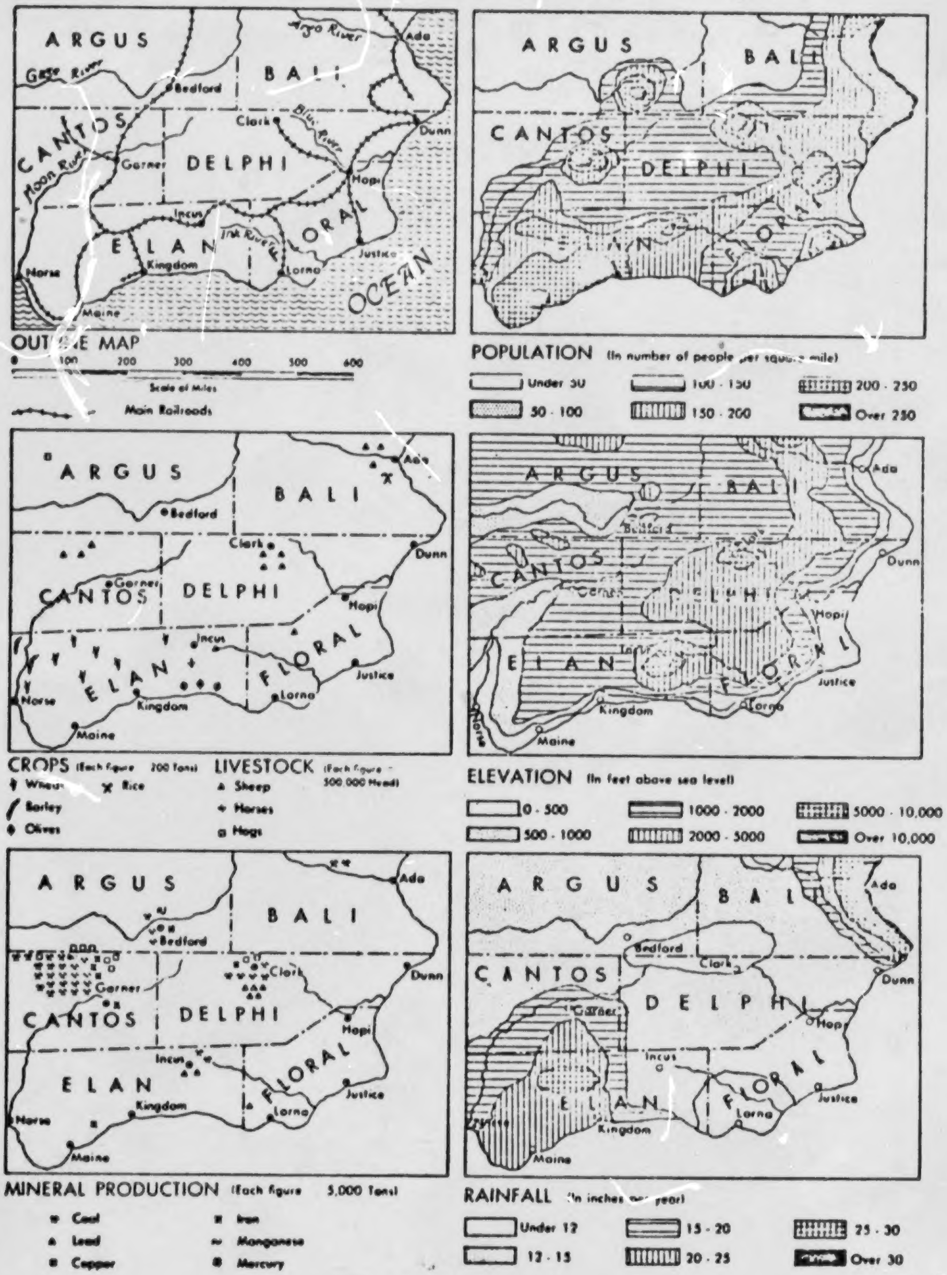
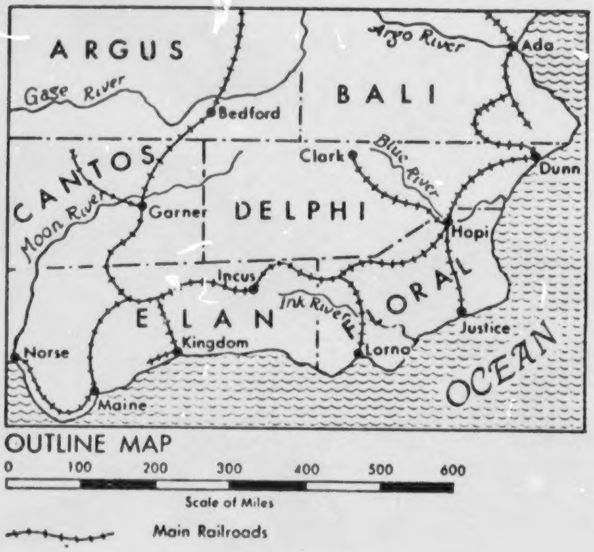
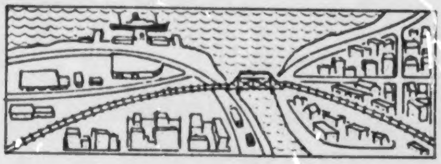

ARGUS
BALI
CANTOS
DELPHI
ELAN
FLORAL
OCEAN
Gate River
Argo River
Blue River
Moon River
Ink River
Ada
Bedford
Clark
Dunn
Garner
Hopi
Incus
Justice
Kingdom
Lorna
Maine
Norse
OUTLINE MAP
0 100 200 300 400 500 600
Scale of Miles
Main Railroads
POPULATION (In number of people per square mile)
Under 50
50 - 100
100 - 150
150 - 200
200 - 250
Over 250
CROPS (Each figure 200 Tons)
Wheat
Rice
Barley
Olives
LIVESTOCK (Each figure 500,000 Head)
Sheep
Horses
Hogs
ELEVATION (In feet above sea level)
0 - 500
500 - 1000
1000 - 2000
2000 - 5000
5000 - 10,000
Over 10,000
MINERAL PRODUCTION (Each figure 5,000 Tons)
Coal
Lead
Copper
Iron
Manganese
Mercury
RAINFALL (In inches per year)
Under 12
12 - 15
15 - 20
20 - 25
25 - 30
Over 30

Figure E

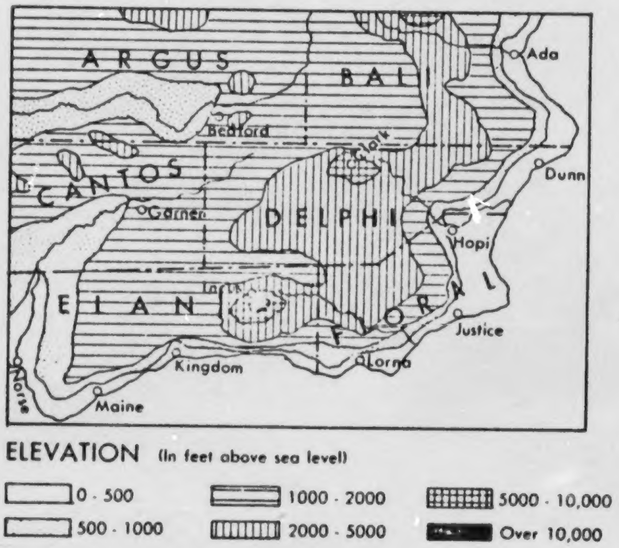
7. ABILITY TO VISUALIZE LANDSCAPE FEATURES

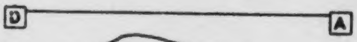

ARGUS
BALI
CANTOS
DELPHI
ELAN
FLORAL
OCEAN
Gage River
Argo River
Blue River
Moon River
Ink River
Ada
Bedford
Clark
Dunn
Garner
Hopi
Incus
Justice
Kingdom
Lorna
Norse
Maine
OUTLINE MAP
0
100
200
300
400
500
600
Scale of Miles
Main Railroads

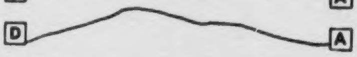


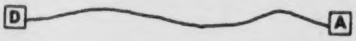
Which city is shown in this air view -- Ada or Dunn?

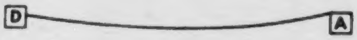
Why is this not a picture of the city of Garner? of Justice?


ARGUS
BALI
CANTOS
DELPHI
ELAN
FLORAL
Ada
Bedford
Clark
Dunn
Garner
Hopi
Incus
Justice
Kingdom
Lorna
Norse
Maine
ELEVATION (In feet above sea level)
0 - 500
500 - 1000
1000 - 2000
2000 - 5000
5000 - 10,000
Over 10,000

1) 

2) 

3) 

4) 

Which of these shows the changes in elevation of a straight line drawn from Dunn to Ada?

8. ABILITY TO INFER MAN'S ACTIVITIES OR WAY OF LIVING

8a. Ability to infer man's activities or way of living from outline maps and/or

8b. Ability to infer man's activities or way of living from pattern maps

Which is probably the busiest railroad center?

Which of these things is most likely to be imported to _______ -- fish or automobiles?

What is probably the main reason why _____ is so sparsely populated?

Why is there very little industry in Southwestern _________?

Which state would be most likely to use irrigation methods in farming?

Which business activity would _______ and ________ have in common?

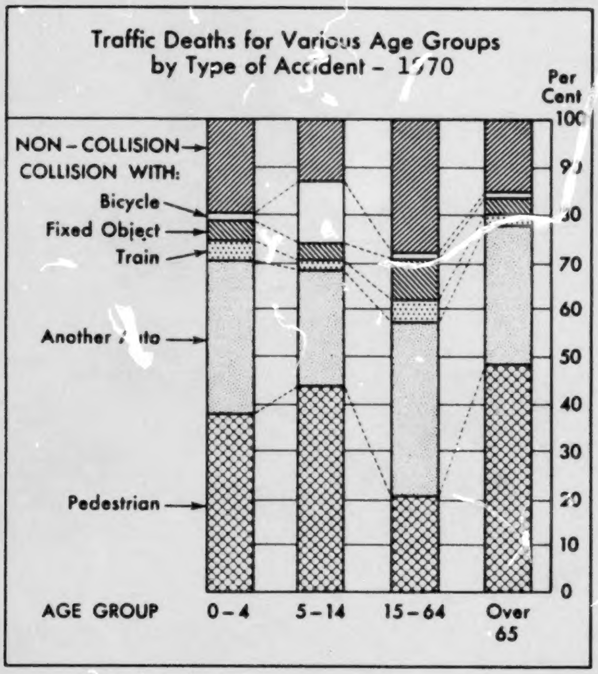
Which city is most likely to have petroleum processing plants?

Work Study Skills

Reading Graphs and Tables

QUESTION FORMAT

Given a bar graph, line graph, picture graph, circle graph, or table, answer questions based on the information provided. One of the choices may be "The table does not tell" or "The graph does not give this information."


Traffic Deaths for Various Age Groups by Type of Accident - 1970

About what percent of those killed in the 5-14 age group were in accidents involving bicycles?
1) 1% * 3) 13%
2) 3% 4) 20%

How did the total number of deaths in the 15-64 age group compare with that for the 5-14 age group?
1) There were about the same number.
2) There were about twice as many in 5-14 age group.
3) There were about twice as many in the 15-64 age group.
* 4) One cannot tell from the graph.

GRADE 9 SKILLS CLASSIFICATION

2. TO RECOGNIZE FROM SUBTITLES AND ROW AND COLUMN HEADINGS WHAT IS SHOWN BY EACH PART OF A GRAPH OR TABLE

See Figure F

A pound of which of the foods listed contains the most protein?

How many grams of carbohydrate are contained in 2 slices of whole wheat bread?

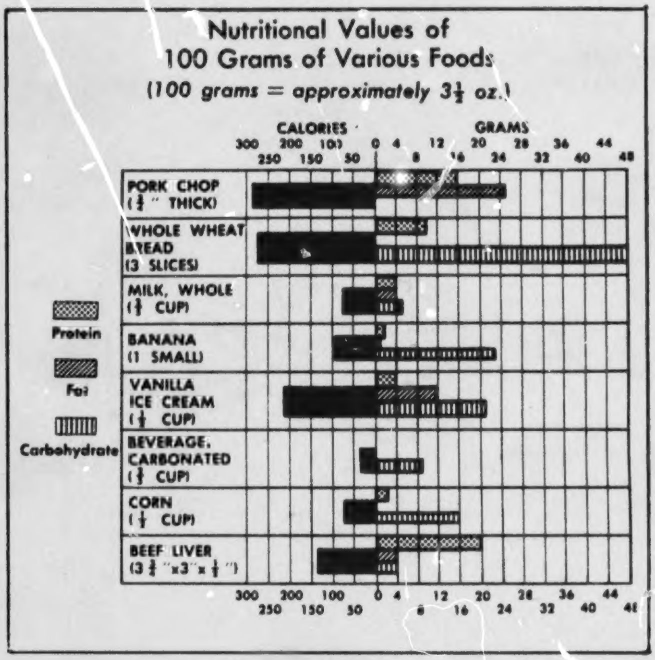


Figure F

See Figure G

Which would be included in group C -- a public library or a flour mill?

How many of the groups shown does it take to make up 100% of the wealth of the U. S.?

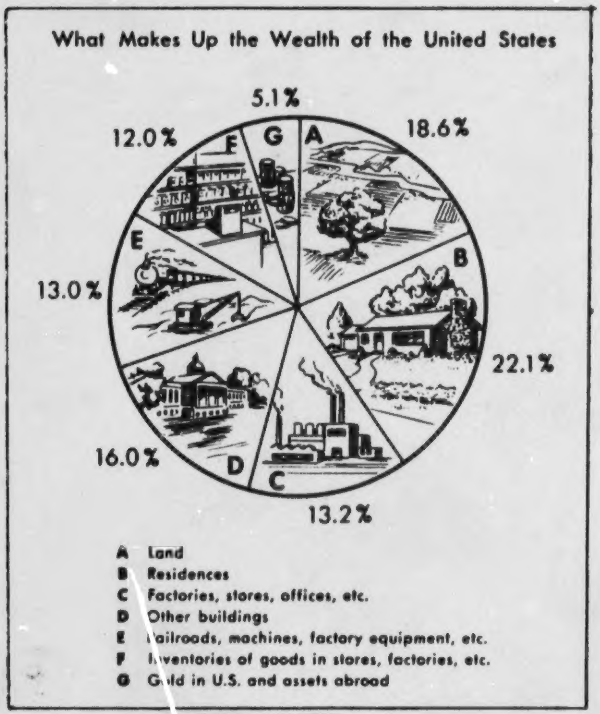


Figure G

See Figure H

Which zones have the same parcel post rates for all shipping weights?

What would be the exact weight of a package which costs 44¢ to send to Zone 3? (One cannot tell from the table.)

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
0 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	66¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure H

3. TO READ AMOUNTS

3a. To Read Amounts, by using the scale or scales on bar, line, and picture graphs

See Figure I

About what fraction of deaths in the 0-4 age group resulted from collisons between 2 or more cars?

What percent of the total deaths of those over 65 were contributed by the two leading causes of death?

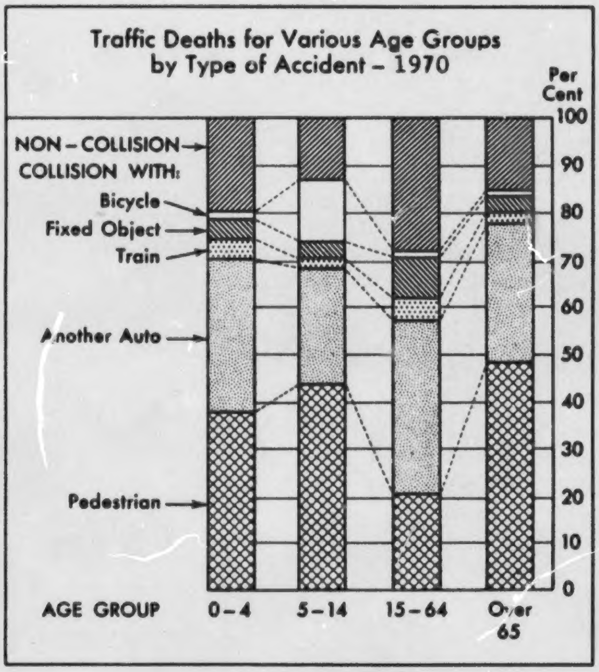


Figure I

See Figure J

What was the lowest temperature recorded during this period?

In how many months was the average monthly temperature above 45 degrees?

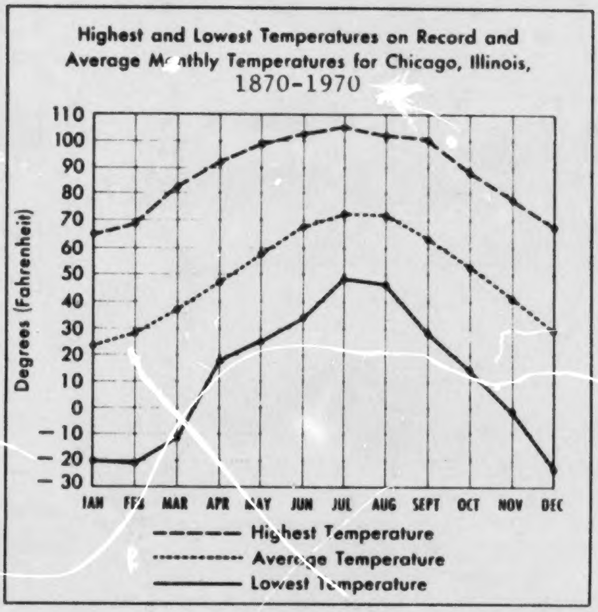


Figure J

See Figure K

Which two product groups together contributed more than half of each dollar spent?

How many product groups contributed less than 15¢ of each dollar spent?

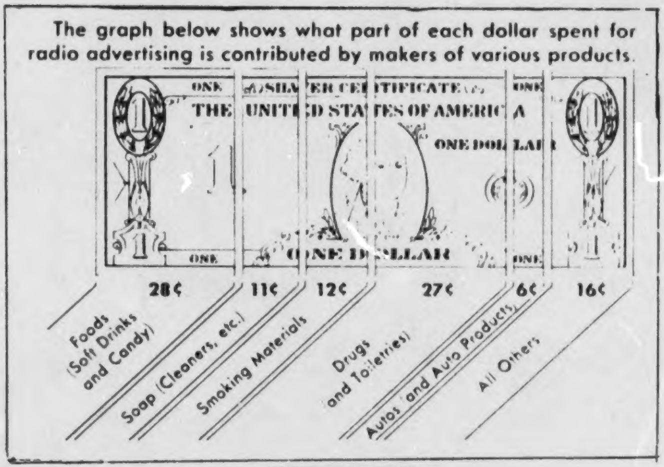


Figure K

3d. To Read Amounts by Using Special Symbols and a Key

See Figure F

Which food contains no carbohydrate?

How many grams of protein does ½ cup of vanilla ice cream contain?

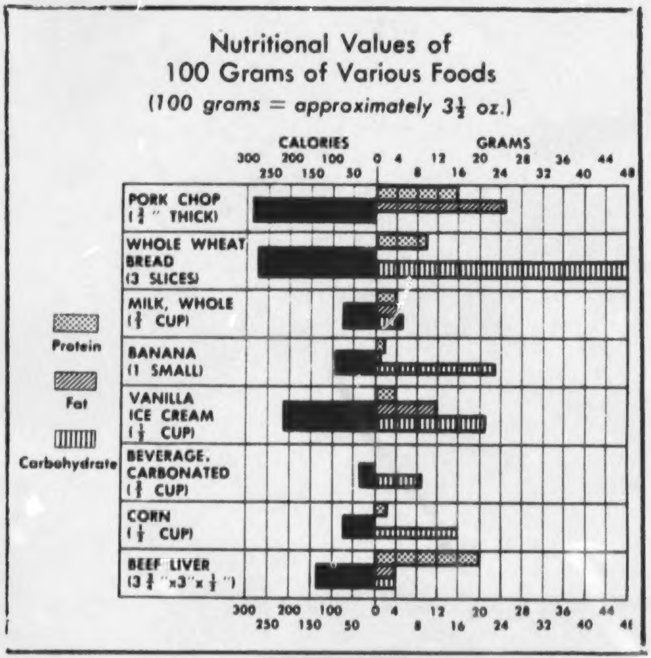


Figure F

See Figure G

Products which have not yet been sold to the consumer account for about what fraction of the total U. S. wealth?

If the estimated wealth of the U.S. is 900 billion dollars, what is the approximate total value of railroads, machines, factory equipment, etc.?

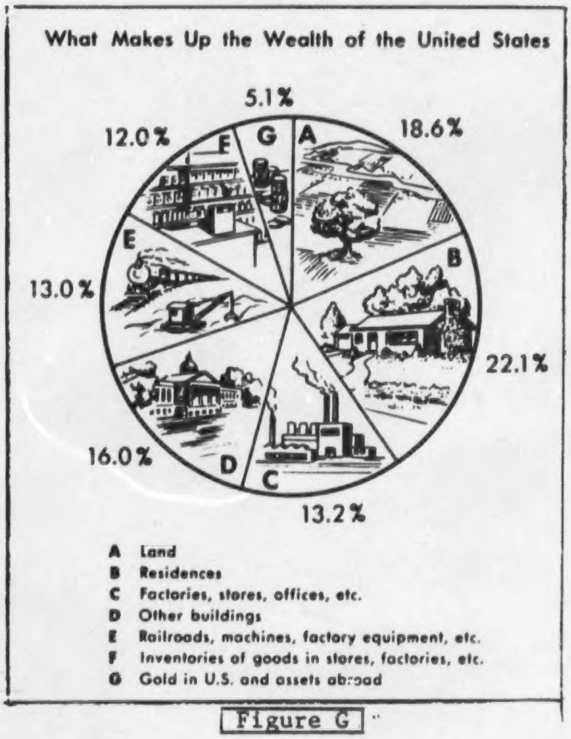


Figure G

See Figure L

About what fraction of farms have electricity?

In general, about how many farmers out of every hundred have automobiles?

About what percent of farms are without running water?

Per Cent of Farms in the United States Reporting Various Types of Equipment

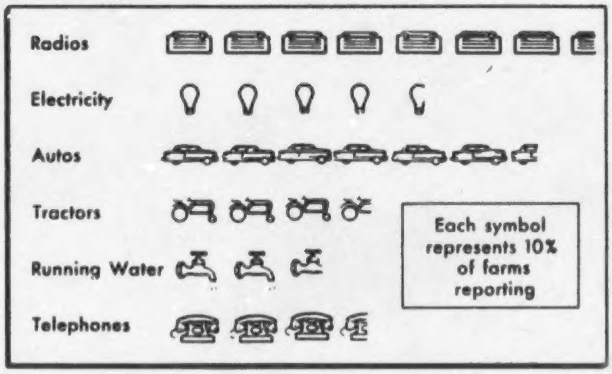


Figure L

4. TO COMPARE TWO OR MORE VALUES READ FROM A GRAPH OR TABLE

4a. To Compare Two or More Values Read from a Graph or Table, by determining rank (greatest, most, least, fewest, first, last)

See Figure M

Which group ranks second to residences in making up total U.S. wealth?

United States Wealth and Debt, 1920-1948

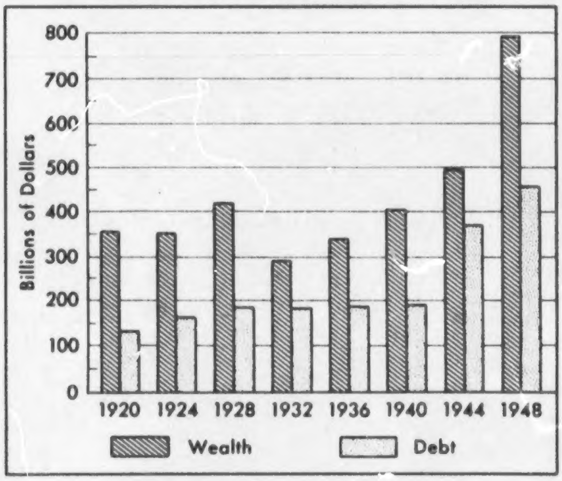
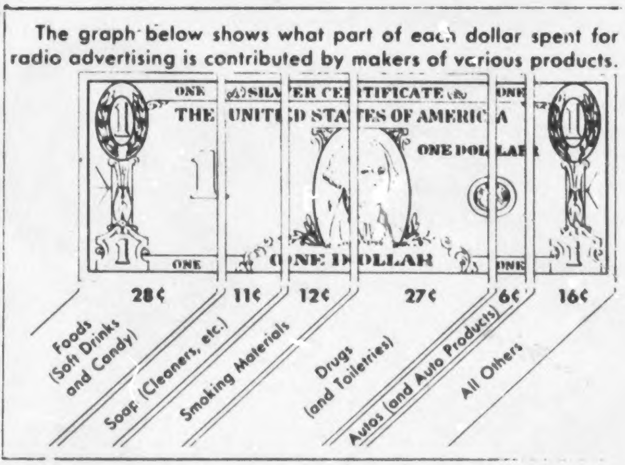


Figure M

216

See Figure K

Which product group makes the greatest contribution to each dollar spent for advertising?

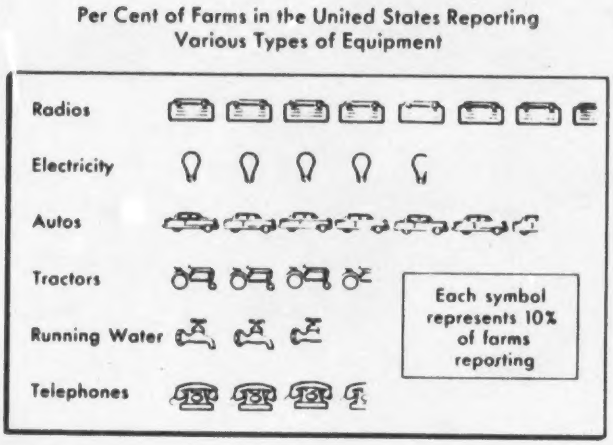


The graph below shows what part of each dollar spent for radio advertising is contributed by makers of various products.

Figure K

See Figure L

Which type of equipment is most often found on the farms reporting? least often?



Per Cent of Farms in the United States Reporting Various Types of Equipment

Figure L

Reading Graphs and Tables

4b. To Compare Two or More Values Read from a Graph or Table, by determining differences between amounts (more, less, fewer, greater, equal to, same as)

See Figure H

How much more would it cost to ship a 6 pound package than a 2 pound package to Zone 4?

Parcel Post Rates / Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	[illegible]	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	65¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure H

See Figure J

In January, how many degrees less than the highest temperature was the lowest temperature recorded?

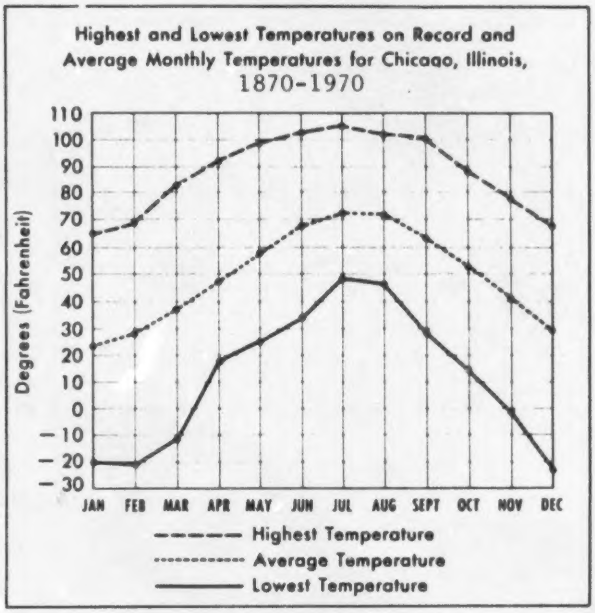


Figure J

Reading Graphs and Tables

See Figure N

How many hours after soaking was popping volume at a maximum for both varieties?

About how many hours of drying did it take to reduce the popping volume of the soaked popcorn to that of the unsoaked?

Popcorn dries out rapidly when exposed to air. Scientists conducted an experiment to find what effect moisture content has on popping volume. They soaked two kinds of popcorn for two hours and then let it dry out under average home conditions. After twelve hours, one-cubic-inch samples were taken at six-hour intervals for popping tests. The graph below shows the results.

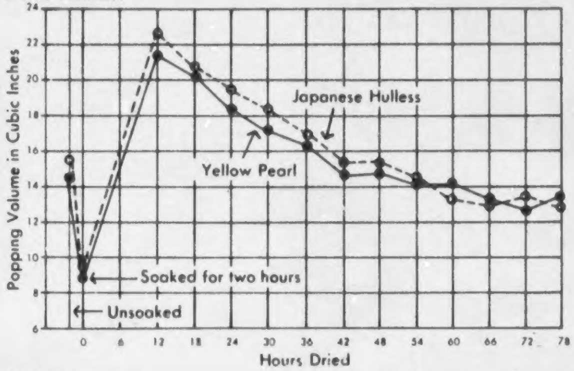


Figure N

4c. To Compare Two or More Values Read from a Graph or Table, by determining how many times greater one amount is than another (half as much, twice as much, what part, what percent)

See Figure G

The assets provided by railroads, machines, factory equipment, etc., and inventories of goods is what part of the total U.S. wealth?

What Makes Up the Wealth of the United States

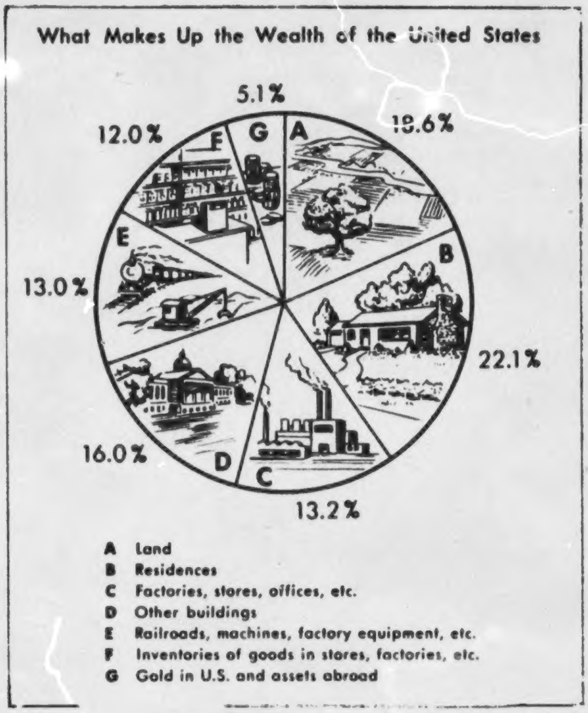


Figure G

See Figure K

Smoking materials contributed twice as much to radio advertising as what other group of products?

Drugs and toiletries contributed about what percent of each dollar spent?

The graph below shows what part of each dollar spent for radio advertising is contributed by makers of various products.

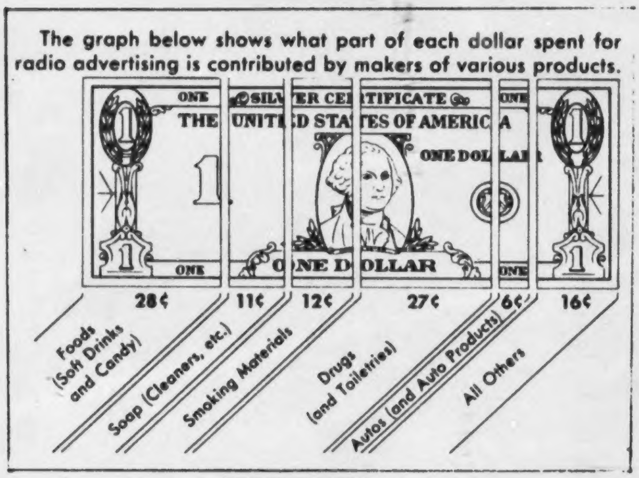


Figure K

220

See Figure K

It costs half as much to send a 6 lb. 5 oz. package in the city than to send it to which zone?

Parcel Post Rates Total Shipping Weight	In City	Zones 1 & 2 Up to 150 Miles	Zone 3 151 to 300 Miles	Zone 4 301 to 600 Miles	Zone 5 601 to 1,000 Miles
9 oz. to 1 lb.	18¢	23¢	23¢	24¢	26¢
1 lb. 1 oz. to 2 lb.	20¢	27¢	29¢	31¢	36¢
2 lb. 1 oz. to 3 lb.	21¢	31¢	34¢	38¢	45¢
3 lb. 1 oz. to 4 lb.	23¢	35¢	39¢	45¢	54¢
4 lb. 1 oz. to 5 lb.	24¢	39¢	44¢	52¢	63¢
5 lb. 1 oz. to 6 lb.	26¢	43¢	49¢	59¢	73¢
6 lb. 1 oz. to 7 lb.	27¢	47¢	54¢	66¢	82¢
7 lb. 1 oz. to 8 lb.	29¢	51¢	60¢	73¢	91¢
8 lb. 1 oz. to 9 lb.	30¢	55¢	65¢	80¢	1.00
9 lb. 1 oz. to 10 lb.	32¢	59¢	70¢	87¢	1.10
For ea. add'l. lb. add	1½¢	4¢	5¼¢	7¢	9¼¢

Figure K

5. TO DETERMINE RELATIVE RATES OR TRENDS

See Figure K

Within which postal zone is there the greatest increase in postage rate as package weight increases?

See Figure J

During which season of the year is there the least variation in temperature in Chicago?

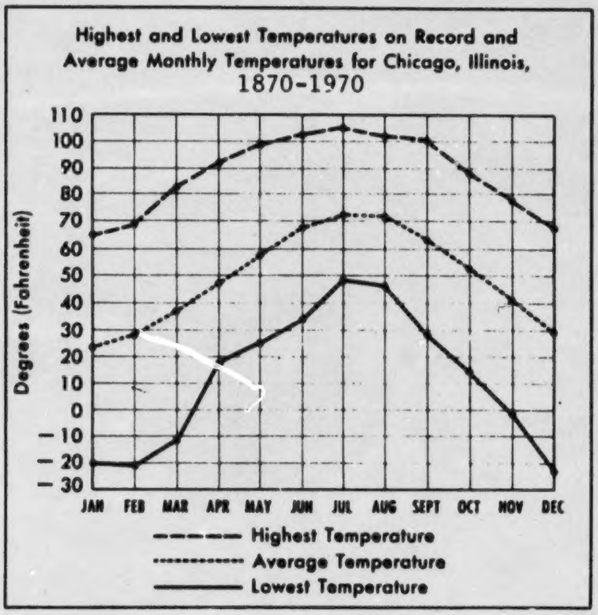


Figure J

See Figure M

What effect did the depression during the 1930's have on the national debt?

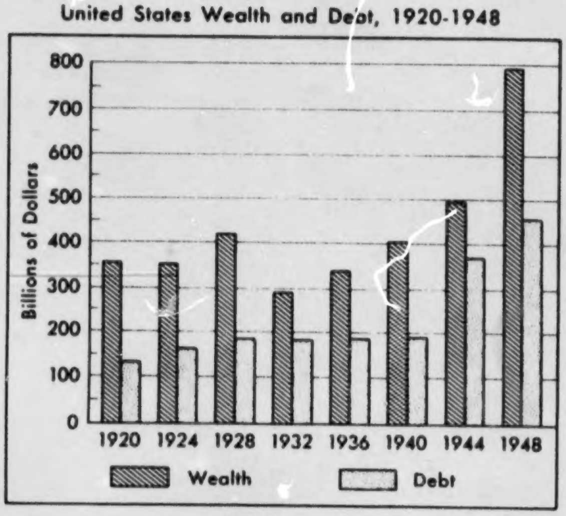


Figure M

6. TO DETERMINE UNDERLYING RELATIONSHIPS THROUGH CORRECT INTERPRETATION OF A GRAPH

See Figure G

About what percent of the wealth of the U.S. is invested in buildings?

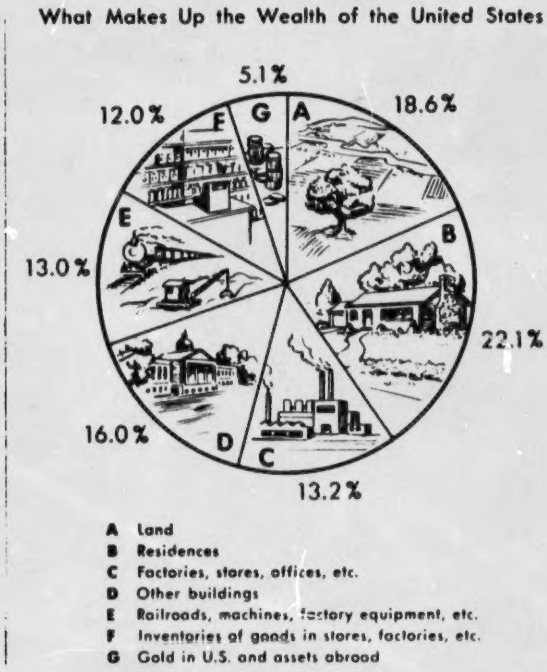


Figure G

See Figure N

According to the graph, what procedure would improve dried-out popcorn?

What does the graph suggest about the 2 varieties of popcorn -- Yellow Pearl dries out faster,
or
Japanese Hulless gains much more from soaking and drying,
or
soaking and drying have about the same effect on both varieties?

Popcorn dries out rapidly when exposed to air. Scientists conducted an experiment to find what effect moisture content has on popping volume. They soaked two kinds of popcorn for two hours and then let it dry out under average home conditions. After twelve hours, one-cubic-inch samples were taken at six-hour intervals for popping tests. The graph below shows the results.

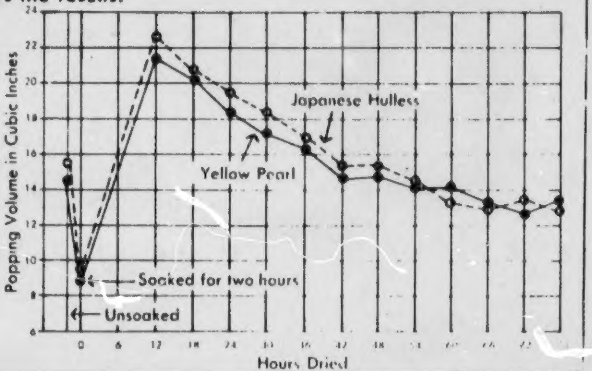


Figure N

See Figure I

What would be a reasonable estimate of the percent of all fatal accidents involving collision between a car and a train?

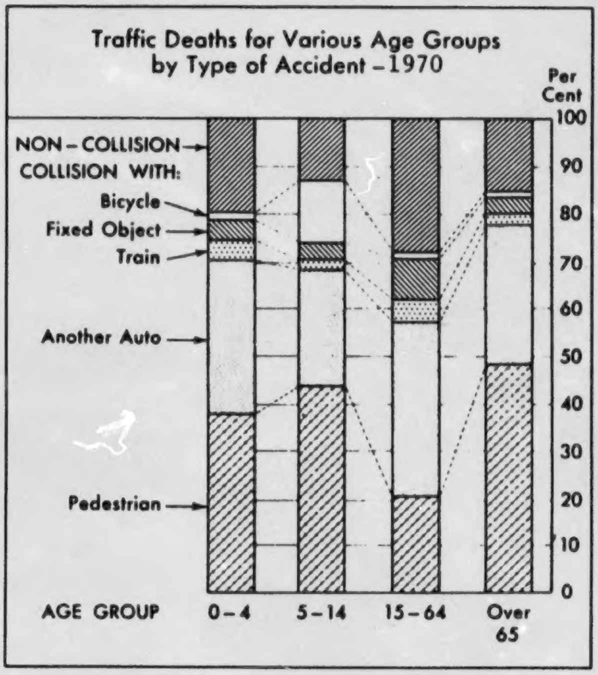


Figure I

7. TO GRASP THE OUTSTANDING FACTS PORTRAYED BY A GRAPH OR TABLE

What conclusion can be drawn from this graph?
What does this graph suggest about __________?
What is the one most important fact which this graph shows?
According to this graph, what should one __________?

Work Study Skills

Knowledge and Use of Reference Materials

QUESTION FORMAT -- ALPHABETIZING

Given a list of four numbered words, choose the one that come first alphabetically.

1) Eastern Shore
2) Eau Claire
3) Eastport
* 4) East Liverpool

GRADE 9 SKILLS CLASSIFICATION -- ALPHABETIZING

A. SKILL IN ALPHABETIZING

- To first letter
- To second letter
- To third letter
- To fourth letter
- Proper names
    - Quincy Meat Market
    - Quincy, Neal
    - Quinn, Mark F.
    - Wachter, Zeno
    - Wachtor, Anthony
    - Wacker Cleaners
    - Wack's Printers
    - Saint Vincent
    - sanitize
    - San Diego
- Hyphenated words mixed with words that are not hyphenated
    - East-West Truckers
    - Eastport
    - East, W. B.

Knowledge and Use of Reference Materials

QUESTION FORMAT -- DICTIONARY

Given a sample dictionary and key, answer questions about the dictionary entries

Use the sample dictionary and the key below it to answer the exercises on this page.

SAMPLE DICTIONARY

ab·ste'mi·ous (ăb·stē'mĭ·ŭs), *adj.* Sparing in diet; refraining from free use of food and strong drink; moderate.

ac'me (ăk'mē), *n.* 1. The top or highest point. 2. The crisis or height of a disease.

brace (brās), *n.* 1. A support used to make something steady. 2. A pair. 3. An instrument used to hold tools for making holes. 4. *pl.* Suspenders. — *v.* 1. To steady something. 2. To hold together.

clan·des'tine (klăn·dĕs'tĭn), *adj.* Conducted with secrecy for an evil purpose; underhanded.

fal'chion (fôl'chŭn; fôl'shŭn), *n.* A sword.

groat (grōt), *n.* An English coin worth 4 cents.

hy'dra (hī'drȧ), *n.* 1. A tiny plant-like fresh-water animal with a more or less stationary base and a mouth and tentacles on one end. 2. Any continuing evil that has many causes and is difficult to overcome.

li'ra (lē'rä), *n.*; *pl.* LIRE(-rā), LIRAS(-räz). A coin of Italy.

prat'tle (prăt''l), *v.* To chatter; to babble like a child.

stip'u·late (stĭp'ū·lāt), *v.* To make an agreement; to bargain; to arrange as part of an agreement.

sub'ter·fuge (sŭb'tẽr·fūj), *n.* 1. A trick or scheme whereby one tries to escape from a difficulty. 2. An excuse or an evasion used to justify one's opinions.

tar'tan (tär'tăn), *n.* 1. Checkered woolen cloth, often worn in Scotland. 2. One who wears tartan; a highlander. — *adj.* Made of or like tartan. — *v.* To dress in tartan.

ze'nith (zē'nĭth), *n.* 1. That part of the heavens directly above where one stands. 2. The greatest height.

AIDS TO USING THIS SAMPLE DICTIONARY:

1. **Key words for pronunciation**: āge, ădd, dȧcount, câre, ärm, ȧsk, sofȧ; ēve, hēre, ēvent, ĕnd, silĕnt, makẽr; īce, ĭll, charity; ōld, ōbey, ôrb, ŏdd, cŏnnect; fo͞od, fo͝ot; out, oil; cūbe, ūnite, ûrn, ŭp, circŭs.
2. **Syllables** are indicated by a dot (·) or by the light (') or heavy (') accent mark.
3. **Abbreviations** used: *adj.*, adjective; *adv.*, adverb; *n.*, noun; *pl.*, plural; *v.*, verb.

In which sentence is a form of the word stipulate used correctly?

1) The sale should *stipulate* business.
2) The trip was a *stipulating* experience.
* 3) His salary was *stipulated* in the contract.
4) The president will be *stipulated* next Tuesday.

GRADE 9 SKILLS CLASSIFICATION -- DICTIONARY

D- USING THE DICTIONARY

D-2 Pronunciation
What is the preferred pronunciation of ___________?
Which word has a silent letter?
Which is pronounced most nearly like it is spelled?
With what does the second syllable of _________ rhyme?

D-3 Syllabication
How do you divide _________ at the end of a line?

D-4 Plural Forms
What is the preferred plural form of ________?
Which form of the word ________ best fills the blank: "We have several ________."

D-5 Parts of Speech
What part of speech is ___________?
How do you change _________ to an adverb?
Which word can be three different parts of speech?
How would you use ________ as an adjective? a noun? a verb?

D-6 Meaning
Which means most nearly the same as __________?
In which sentence is __________ used correctly?
What would you describe as __________?
Which dictionary meaning of the word __________ would you use to illustrate ___________ -- Number 1 or Number 3?
Which meaning of the word ________ was used more in the past than today?

QUESTION FORMAT -- ENCYCLOPEDIA

Given a list of guide words indicating the first and last topic contained in each volume of an encyclopedia, answer question about the location of these topics. The fourth choice is "None of these."

Vol. 1	A — Bridge
Vol. 2	Bridgeburg — Chromium
Vol. 3	Chromosome — Debussy
Vol. 4	Debye — Ezri
Vol. 5	F — Gyroscope
Vol. 6	H — Leibnitz
Vol. 7	Leicester — Mongols
Vol. 8	Mongoose — Pancake
Vol. 9	Pancevo — Roof
Vol. 10	Rook — Spiritual
Vol. 11	Spiro — Uzziel
Vol. 12	V — Zyrians

In which volume would you find the properties of magnesium, a chemical often used in making fireworks?
1) Volume 2 * 3) Volume 7
2) Volume 5 4) None of these

Which volume would give a complete list of the gods of Greek mythology?
1) Volume 1 3) Volume 3
2) Volume 2 * 4) None of these

GRADE 9 SKILLS CLASSIFICATION -- ENCYCLOPEDIA

E- USE OF ENCYCLOPEDIA

Volume Selection

Which volume would tell you about ______________?
If volume _______ did not have the information you wanted about _______, in what volume would you look next? After that?
If you wanted to compare __________ and __________, in which volume would you find both discussed?

QUESTION FORMAT -- DICTIONARY GUIDE WORDS

Given a list of page numbers and guide words for each page, choose the page number on which you would find given words. The fourth choice is "None of these."

extremity	115	eyetooth
eyewitness	116	facetious
facial	117	failure
faint	118	falcon
falconry	119	falsehood

On which page would you find the word fallibility?
1) 117 * 3) 119
2) 118 4) None of these

On which page would the word external appear?
1) 115 3) 117
2) 116 * 4) None of these

GRADE 9 SKILLS CLASSIFICATION -- DICTIONARY GUIDE WORDS

G- USING DICTIONARY GUIDE WORDS

- Word location
  On which page would the word ________ appear?
  On which page would you find the word __________?

Knowledge and Use of Reference Materials

QUESTION FORMAT -- INDEX

Given an index, tell which page or pages would contain certain information. The last choice is "Not given."

Ex. 1	What page might tell you how fruit gets from the grower to the consumer? 1) 166 3) 168 * 2) 167 4) Not given	Ex. 2	What page tells about Montreal, a large city in Canada? 1) 4 3) 57 2) 54 * 4) Not given

Students are instructed to decide for themselves what the right answer is rather than checking all the suggested answers against the index so that they will not waste time checking wrong answers. The instructions are as follows:

FOR EACH EXERCISE, TRY TO FIND THE CORRECT PAGE NUMBER IN THE INDEX BEFORE YOU READ THE SUGGESTED ANSWERS. IF NONE OF THE SUGGESTED ANSWERS IS RIGHT, OR IF YOU CANNOT FIND THE INFORMATION IN THE INDEX AT ALL, MARK THE FOURTH ANSWER SPACE.

INDEX

Alaska, 39

Canada, 4, 54–59; chart showing population by province, 57; government, 55; principal cities of, 56

Cattle, beef, 153–158; dairy, 92

Central America, 5–6, 8; (map), 62

Corn, harvesting of, 101; yield by region (table), 105

Cotton, export of, 183–184; gin, 181; picking (picture), 180, plantations, 182

County agricultural agent, 103

Deserts, 142

Farm belt, states in the, 99

Farming, in the U. S., 93–107; in Mexico, 61–62; pioneer farms, 64; wheat, 93–97

Fruit, grown in U. S. (map), 166; imports, 168; marketing of, 167

Hawaii, 40

Hemisphere, northern, 18–20; southern, 21–23; (maps), 24–26

Industry, definition of, 109. *See also* Manufacturing

Manufacturing, 107–128; history of, 107–108; major centers in U. S., 115; steel, 111–112

Mounted police, 59

Ocean trade, 129–141

Pig iron, *see* Manufacturing

GRADE 9 SKILLS CLASSIFICATION -- INDEX

I- USING THE INDEX See Figure O

To answer questions on use of the index, the student must interpret chapter content, use cross references, note the availability of maps, charts, tables, etc., and determine what information is not given by the index.

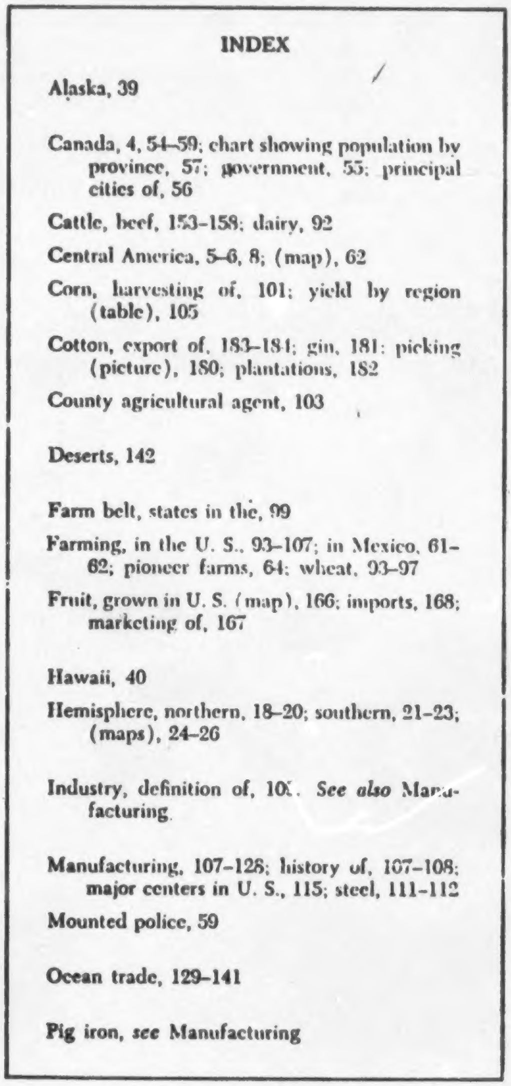
To find out which region in the farm belt produces the most corn, you would look at which page?

To what page would you turn to find out how pig iron is used in making steel?

What page would help you locate San Salvador, a city in Central America?

Which page tells which states lead in the production of milk, butter, and other dairy foods -- 93, 99, or 153? (Correct answer is not given)

Which page tells about the importing of cotton to the United States? (Information is not given in the index.)



INDEX

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Manufacturing, 107–128; history of, 107–108; major centers in U. S., 115; steel, 111–112

Mounted police, 59

Ocean trade, 129–141

Pig iron, *see* Manufacturing

Figure O

QUESTION FORMAT -- KEY WORDS

Choose the best key word to use in locating given topics in encyclopedias and indexes.

The mosquito spreads diseases like malaria and yellow fever. Which key word would you choose to read about this insect?

1)	malaria	3)	diseases
* 2)	mosquito	4)	yellow fever

GRADE 9 SKILLS CLASSIFICATION -- KEY WORDS

K- USING KEY WORDS

Choosing Best Key Word for Given Topic

If you wanted to read about skiing, the national sport of Norway, which key word would you look up?

Which key word would you choose if you wanted to know the similarities between haddock and codfish?

Which key word would you choose to read about the British statesman, Cecil Rhodes, who made a fortune in African diamond fields?

QUESTION FORMAT -- GENERAL REFERENCE MATERIALS

Answer questions based on knowledge of the use of general reference materials.

Where would you find an account of the Battle of Gettysburg?
1) In The Collected Speeches of Abraham Lincoln
2) In a geography text
* 3) In a history of the Civil War
4) In Handbook of Military Strategy

GRADE 9 SKILLS CLASSIFICATION -- GENERAL REFERENCE MATERIALS

R- USING GENERAL REFERENCE MATERIALS

R-2 Using General Reference Materials, use of maps and globes
Which of these would you use to most easily locate the cities through which the 55° North Latitude line passes -- a dictionary, an atlas, or a globe?

R-7 Using General Reference Materials, use of special references such as Who's Who in America, The World Almanac, etc.
Which would give you the background of the present vice-president of the United States -- Who's Who in America, Political Review, or The Congressional Record?
In which would you find figures on the U. S. shipping industry as compared with that of other countries -- a recent history of the U. S. or The World Almanac?
What information would you expect to find in the following -- Thesaurus, U. S. Population Census, Poetry Index, Yearbook of Agriculture, Reader's Guide to Periodical Literature?

R-8 Using General Reference Materials, use of current magazines
Which magazine would be most likely to contain reports of a recent election in a Southeast Asian country -- National Geographic or Newsweek?

R-9 Using General Reference Materials, use of the parts of a book: index, table of contents, etc.
Which part of an atlas will help you locate a certain map within the atlas most quickly -- the table of contents, glossary, or index?
In which might you find the names of the people who had helped the author in writing a book -- the title page, the bibliography, or the preface?
Where is the appendix located? What is it?

R-10 Using General Reference Materials, book selection

Which would you expect to be a biography? an autobiography?

Which would you find on the fiction shelf?

In which book would you most likely find the poem, ________?

What might a book called Effective Insecticides be about -- germ warfare or controlling garden pests?

If you wanted to learn about different breeds of dogs, which would you read -- Man's Best Friend, The Story of a Terrier, or Sled Dogs of the Artic?

Mathematics Concepts

QUESTION FORMAT

Given a mathematics exercise, choose the one correct answer from the four choices given.

In which of these numbers does the numeral 8 represent hundredths?
* 1) 165.28 3) 97.138
2) 284.17 4) 857.31

GRADE 9 SKILLS CLASSIFICATION

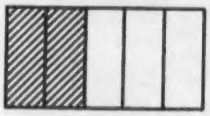
D- DECIMALS

D-2 Decimals, relative value

In which set are the numbers arranged from smallest to largest -- 2.9, 31/10, 2 4/5, 3 or 2 4/5, 2.9, 3, 31/10?
Which of these is the smallest number -- .035, .350, or .305? the largest number?
Which of the following is greater in value than .823-- .832, .8, or .8204?

D-4 Decimals, fraction, decimal, percent equivalents

In which case are the expressions not equivalent -- 2/5, .40; 5/6, 87½%; or 37½%, 3/8?
What part of this figure is shaded -- .37½, .4, or .25?



D-5 Decimals, fundamental operations, ways to perform

For which of these is 37.26 the answer -- 372.6 ÷ 10 or .3726 x 10?
In order to make the exercise 2152 x 3.1 = 6.6712 correct, where in the first factor should a decimal point be placed?

D-6 Decimals, fundamental operations, estimating results

Which is the best way to estimate the answer for 3.9 x 5 4/5 -- 3 x 5, 3 x 6, or 4 x 6?

E- EQUATIONS, INEQUALITIES, AND NUMBER SENTENCES

What should replace n in the number sentence ½ x n = 3/4 ?
What should replace n in the equation 3n + 6 = 30?
Which of these equations can be solved by adding 9 to both sides or members? x - 9 = 17 or x/9 = 17

In the expression 3/7 ☐ 3/12, what should replace the ☐ -- <, >, or =?

F- FRACTIONS

F-2 Fractions, relative values

Which set of fractions is arranged in order from largest to smallest?
How many times as large as 1/4 is 4?
Which fractional number is less than 2/5 -- 2/6 or 4/10?

F-3 Fractions equivalents

Which is the way to find an equivalent fraction for 4/5 --

$$\frac{4 \times 2}{5 \times 2} \quad \text{or} \quad \frac{4 + 2}{5 + 2}\ ?$$

In subtracting $\begin{array}{r} 4\ 3/8 \\ \underline{-\ 2\ 5/8} \end{array}$ what is the way to think of 4 3/8 --

as 3 8/8 or 3 11/8?

F-4 Fractions, terms (reciprocal, equivalent, mixed number, numerator, denominator, etc.)

F-5 Fractions, fundamental operations, ways to perform

What should replace the Δ in the equation $7/8 + 1/4 = \frac{7 + \Delta}{8}$?

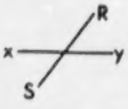
Which of these multiplication exercises is worked correctly?

$$\begin{array}{r} 21\frac{1}{2} \\ \underline{\times\ \ 5} \\ 2\frac{1}{2} \\ \underline{105} \\ 107\frac{1}{2} \end{array} \qquad \text{or} \qquad \begin{array}{r} 21\ 2/3 \\ \underline{\times\ \ 6\ \ \ \ } \\ 2\ \ \ \ \\ \underline{126\ \ \ \ } \\ 128\ \ \ \ \end{array}$$

G- GEOMETRY

G-1 Geometry, points, lines and planes

In which of the diagrams is RS the perpendicular bisector of XY?



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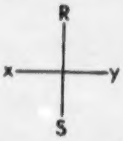

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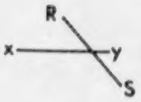

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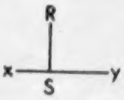
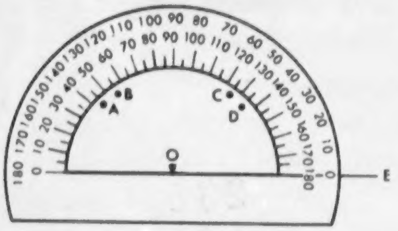


D

Through which of these points should you draw a line from 0 to form an angle of 55 degrees with line segment OE?

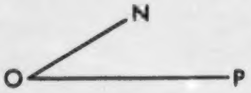


Mathematics Concepts

G-2 Geometry, recognizing kinds and parts of geometric figures (quadrilateral, parallelogram, line segment, hexagon, plane figures, etc.)

G-3 Geometry, angles and triangles

What must one do in order to bisect angle NOP?

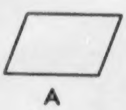


Which group of angles can be used in constructing an isosceles triangle -- $50^\circ, 60^\circ, 70^\circ$ or $80^\circ, 50^\circ, 50^\circ$?

Which angle is obtuse? congruent? acute?

G-4 Geometry, dimensions, perimeters, and areas of polygons

In which of the figures is the height or altitude measured along one of the sides?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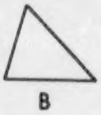
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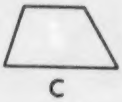
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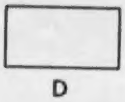
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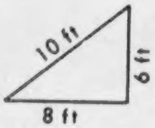
Which is the right way to find the area in square feet of the right triangle below?



$\frac{8x6}{2}$ or $\frac{8x10}{2}$

G-5 Geometry, parts and areas of circles

Which of the line segments is the radius?

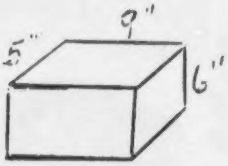
What is the circumference in inches of a circle with a 6-inch diameter?

A given circle has 6 equal central angles. How many degrees are there in each angle?

G-6 Geometry, surface area and volume of solids

What is the total surface area, in square inches, of a cube having an area of 9 square inches on one face?

What is the volume of the box below?



Mathematics Concepts

M- MEASUREMENT

M-7 Measurement, liquid and dry capacity

If a gallon of paint covers 400 square feet, how much would 1 quart cover?

Which number sentence tells how you used the table below to find the number of fluid ounces in a quart --

8 x 2 x 2 or 8 x 2 ?

8 fl. oz. = 1 cup
2 cups = 1 pt.
2 pt. = 1 qt.
4 qt. = 1 gal.

M-8 Measurement, precision of measurement

To the nearest sixteenth inch, what is the length of the __________?

Which is the shortest distance -- 100 yards, ¼ mile, or .3 mile?

A measurement is indicated on a drawing as 1.250" with an allowable error of .004". Which of these measurements would not be acceptable --

1.252, 1.248, or 1.256?

N- NUMERATION AND NUMBER SYSTEMS

N-3 Numeration and Number Systems, place value and expanded notation

Where in the numeral 2163 would you place a zero (0) to obtain the largest number possible?

The number of tenths in 3 is how many times the number of tenths in .3?

In 423.52 the 2 to the left of the decimal point represents how many times the 2 to the right?

Which of these number sentences is equivalent to .314 --

.300+.01+.004 or .300+.010+.4 ?

The expression $4.5\text{x}10^4$ is equivalent to which number -- 45,000 or 450,000?

N-4 Numeration and Number Systems, numeration systems other than base ten

What is the largest two-place numeral that can be written in base 5 --

99, 44, or 49?

N-5 Numeration and Number Systems, properties of numeration and number systems

Which of the following expressions is not equivalent to 9x+6y --

6y+9x or 16(x+y)?

What should replace the □ in the equation [b+(-b)]+a= □ ?

Which equation does not have a solution -- 7÷0=n or 0÷n=7 ?

What should replace n in the expression (3x17)+(3x2)=n x (17+2) ?

N-6 Numeration and Number Systems, special subsets of the real numbers (positive, negative, prime, etc.)

Which is a prime number?

What should replace △ in 33+ △ =17?

At 6 a.m. the temperature was -5°. At noon it was +17°. What was the difference in the morning and noon temperatures?

Mathematics Concepts

P- PERCENTS, MEANING AND USE

Which fraction is nearest in value to 23%?
If the cost of an article is reduced 20%, what fraction of the original price is the new price?

Which equation could be used to find the interest on \$200 for 3 months at 4% --
$200 \times 4 \times \frac{1}{4}$ or $200 \times .04 \times 3$ or $200 \times .04 \times \frac{1}{4}$?

R- RATIO AND PROPORTION

The lines below are actually of different lengths; the scale used in each case is indicated beside the line. Which line is the longest?
1) ———————— 1/25
2) ———————— 1/12
3) ———————— 1/20
4) ———————— 1/35

What is the ratio of ½ ounce to 1 pound?
A picture that is 2¼" wide and 3¼" long is to be enlarged so that it will be 9" wide. Which proportion would be used to find the new length --

$$\frac{x}{3\frac{1}{4}} = \frac{9}{2\frac{1}{4}} \quad \text{or} \quad \frac{x}{3\frac{1}{4}} = \frac{2\frac{1}{4}}{9} \ ?$$

S- SETS

In the sequence of numbers below, each term in the sequence is the sum of the term before it plus 4. What is the 30th term in the sequence?
4, 8, 12, 16, ...
How many numbers are in the intersection of the sets [12, 13, 14, 15] and [14, 15, 16, 17] ?

W- WHOLE NUMBERS

W-1 Whole Numbers, reading and writing

How would you read 65,009,000,000?
How would you write one million, three thousand twenty seven in numerals?

W-3 Whole Numbers, rounding

10¼ million is the closest approximate expression for which number?
Total revenue for the Smith Company last year was \$9,686,288,852. Which is the closest approximate expression for this amount -- \$9.7 billion or \$9.6 billion?
What is the result when $\frac{387}{625}$ is rounded to the nearest hundred?
What is the smallest value the number 42,000 could have had before being rounded to the nearest thousand --
41,500; 41,550; or 41,449?

W-4 Whole Numbers, partition and measurement, average

The average of 5 numbers is 23. What is their sum?
On a fishing trip recently, Brad caught 3 fish weighing 4 pounds, 5 ounces; 9 pounds; and 6 pounds, 9 ounces. What was their average weight?

Mathematics Problem Solving

QUESTION FORMAT

Given a mathematics problem, choose the correct answer from the choices given. The last choice says (Not given).

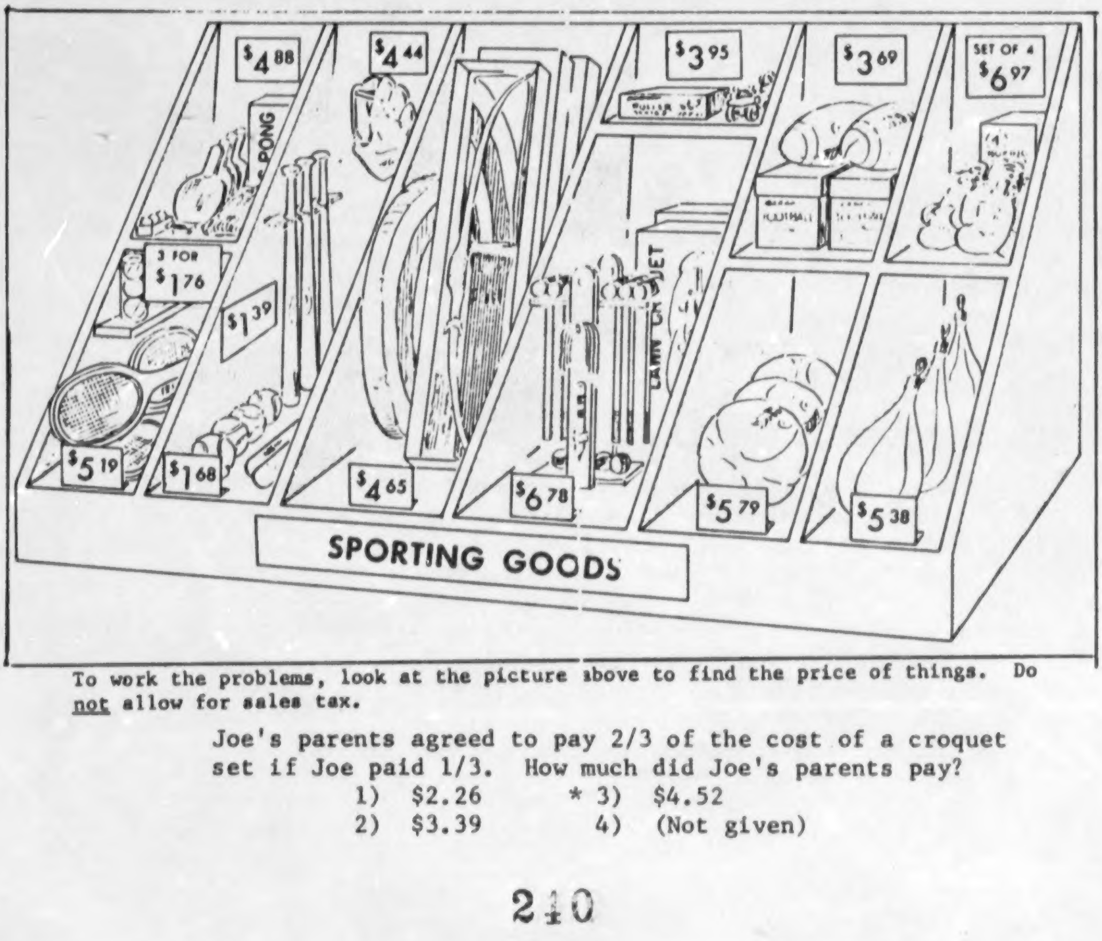
Cruising in his boat at 20 miles per hour, Mr. Collins could go 50 miles on a 6-gallon tank of fuel. At that rate, how many gallons of fuel would he need for a 75-mile trip?

1) 7½ 3) 12½
* 2) 9 4) (Not given)

The motor in Mr. Collins' boat was valued at $485 when new. After a year it was valued at $388. What was the percent of depreciation (loss of value) on the motor for the one year?

1) 15 3) 30
2) 25 * 4) (Not given)

Given a picture of priced items, answer questions by referring to the prices and then solving the problems. Instructions say, "Do not allow for sales tax."


$4 88
$4 44
$3 95
$3 69
SET OF 4 $6 97
PONG
3 FOR $1 76
$1 39
FOOTBALL
LAWN CROQUET
$5 19
$1 68
$4 65
$6 78
$5 79
$5 38
SPORTING GOODS

To work the problems, look at the picture above to find the price of things. Do not allow for sales tax.

Joe's parents agreed to pay 2/3 of the cost of a croquet set if Joe paid 1/3. How much did Joe's parents pay?

1) $2.26 * 3) $4.52
2) $3.39 4) (Not given)

Given a recipe, answer questions by referring to the quantities given and then solving the problems.

POTATO SALAD

2 tablespoons vinegar
5½ cups sliced, cooked potatoes
1⅔ cups sliced cucumbers
¾ cup chopped green pepper
1½ cups chopped celery
1 12-ounce can luncheon meat, cubed
1 cup salad dressing
1¼ teaspoons salt

Serves 8

Using the above recipe, how many cups of sliced cucumbers are needed for salad to serve 12?

1) 5/6	3) 2 2/3
* 2) 2½	4) (Not given)

Given a chart or table, answer questions by referring to the figures given and then solving the problems

LAND AND WATER AREA OF SOME STATES IN THE U. S.

State	Land Area (square miles)	Water Area (square miles)	Total Area (square miles)
California	156,573	2,120	158,693
Illinois	55,930	470	56,400
Kansas	82,048	216	82,264
Montana	145,736	1,402	147,138
Rhode Island	1,058	156	1,214
West Virginia	24,079	102	24,121

What would be the total area of Illinois in acres?
(640 acres = 1 square mile)

1) 121,400	3) 2
2) 776,960	* 4) (Not given)

GRADE 9 SKILLS CLASSIFICATION

C- CURRENCY (MONEY)

Ca- Currency (Money) addition

The Scotts went on a four-week camping trip. They made the following expenditures for camping equipment: tent, $59.92; sleeping bags, $119.80; air mattresses, $49.85; camp stove, $17.95; and lantern, $10.46. What was the total cost of the equipment?

Cm- Currency (Money) multiplication

Bill raised 248 lambs from his flock of 170 ewes. His feed costs averaged $1.25 per lamb. What was the total cost of feed for the lambs?

Cd- Currency (Money) division

The turnpike toll for a passenger car is $1.40 for 88 miles. To the nearest tenth of a cent, what is the rate per mile?

Cms- Currency (Money) multiplication, subtraction

By applying fertilizer costing $3.75 per acre, a farmer obtained a 9-bushel per acre increase in corn yield. If corn was priced at $1.50 per bushel, what was the farmer's net increase in income per acre after paying for the fertilizer?

Cas- Currency (Money) addition, subtraction

The cost of a boat rig which included a 15-foot fiberglass runabout boat, a 40-horsepower outboard motor, and a boat trailer was $995. The boat was regularly priced at $698, the motor at $485, and the trailer at $169. How much would be saved by buying them all together?

Cds- Currency (Money) division, subtraction

A store owner paid $14.28 per dozen for softballs he was going to sell at $1.68 each. How much did he make on each ball?

Cmas- Currency (Money) multiplication, addition, subtraction

Mr. Rogers can buy a television set by paying $144 cash, or by making a down payment of $5.00 and paying $8.50 per month for 18 months. How much less than the installment price is the cash price?

Csd- Currency (Money) subtraction, division

Jerry bought a 10-speed bike with money he earned mowing lawns. He made a down payment of $36 and paid off the balance in 8 equal monthly payments. If the total cost of the bike was $98, how much was each monthly payment?

Cma- Currency, (Money) multiplication, addition

To move a family's belongings a distance of 910 miles, a mover charged 45¢ per mile for moving, $25 for packing, and $30 for unpacking. What was the total cost of the move?

Mathematics Problem Solving

D- DECIMALS

Ds- Decimals, subtraction

The average weight of aquarium catfish after 18 months is 3.9 pounds. The average weight of 18 months old catfish in streams is 2.25 pounds. How many pounds heavier is the average weight of aquarium catfish?

Das- Decimals, addition, subtraction

The Scotts planned to follow an 11-hour schedule each day on their motor trip, arising at 5 a.m. and stopping at 4 p.m. If it took them 1.5 hours each morning to eat breakfast and load the car, and .75 hour each afternoon to unload the car, how many hours did they have left each day for travel?

Dm- Decimals, multiplication

The exit ramps for the Turner Turnpike required 24.24 acres of land per exit ramp. At $174 per acre, how much did each exit ramp cost?

F- FRACTIONS

Fm- Fractions, multiplication

Mr. James bought a 2-year fire insurance policy insuring his house for $8400. If the 2-year rate was 1 3/4 times the annual rate of 28¢ per $100, how much was the 2-year rate?

Fd- Fractions, division

Paul rode his mini-bike a distance of 20 miles in 1¼ hours. What was his average rate in miles per hour?

Fdm- Fractions, division, multiplication

Ellen wants to make beaded headbands to sell at the school fair. If she has 7 1/3 yards of ribbon, and makes 11 headbands, how many inches long is each headband? (1 yard = 36 inches)

Fms- Fractions, multiplication, subtraction

In the World Championship Sled Dog Race, each dog team pulls a load of 1¼ pounds for each pound of dog weight. A dog team weighing 256 pounds would be required to pull how many more pounds than its total weight?

P- PERCENTS

Pms- Percents, multiplication, subtraction

The Western Realty Company helped with the sale of Mr. Johnson's house. For their services, Mr. Johnson paid the realty company 5% commission on the sale price of $20,500. After the commission was paid, what was the amount Mr. Johnson received for the house?

Mathematics Problem Solving

Pm- Percents, multiplication

To buy his 50 x 10 foot mobile home, Mr. Davis borrowed $6,500 at 6% interest. What was the interest on the loan for 1 year?

Pad- Percents, addition, division

The Rock Haven Boys Club had 64 members. Of those participating in their fund-raising drive, 17 sold candy, 14 sold calendars, and 25 sold raffle tickets. What percent of the membership participated in the drive?

Pd- Percents, division

Of the 159 cities that sponsored local soap box derbies in a recent year, 33 were doing so for the first time. To the nearest whole percent, what percent of the cities were first-time sponsors?

R- RATIO AND PROPORTION

Rdm- Ratio and Proportion, division, multiplication

If a train travels at a constant speed covering 208 miles in 4 hours, how far will it travel in 7 hours at the same constant speed?

W- WHOLE NUMBERS

Wd- Whole Numbers, division

The construction of an 88-mile turnpike from Oklahoma City to Tulsa was financed by issuing $38,000,000 in toll-road bonds. To the nearest thousand dollars, what was the average cost per mile?

Wm- Whole Numbers, multiplication

A beekeeper took 48 pounds of honey from one hive. If this was only 1/3 of the honey produced by the colony during the year, how many pounds of honey did the bee colony produce annually?

Wad- Whole Numbers, addition, division

Mr. Wilson is the driver of school bus No. 312. Every day he has 66 passengers in the morning, 36 passengers at noon, and 66 passengers after school. What is the average number of passengers he carries?

Wdm- Whole Numbers, division, multiplication

Mr. Harrington wants to paint his living room. The total area is 180 square feet. The paint he has chosen costs $7.00 for 60 square feet of coverage. How much is the cost of enough paint for his living room?

M- MEASUREMENTS

Mmdm- Measurements, multiplication, division, multiplication

Mr. Hornell tapped 1122 of the approximately 2000 maple trees in his sugar grove. If each tapped tree produced an average of 15 gallons of sap which Mr. Hornell then sold for $27.00 a barrel, how much money did he make from the tap? (55 gallons = 1 barrel)

Vocabulary

QUESTION FORMAT

Given a phrase with one word in heavy type, choose one of four answers that has most nearly the same meaning as the word in heavy type, (Shown below underscored)

Auspicious beginning
1) ambitious
2) ominous
3) practical
* 4) favorable

Admire his perseverence
1) helpful attitude
2) frank manner
3) good nature
* 4) steady effort

GRADE 9 SKILLS CLASSIFICATION

This is the only one of the eleven subtests for which no detailed classification of the skills tested is provided. The following general skills are tested:

1. The use of tools involved in word recognition (phonics, context clues, etc.)
2. Knowledge of the meanings of words
3. Sensitivity to fine differences in meanings and judgment in choosing the most appropriate word in a given context

Student is asked to identify a synonymous word or phrase for a given noun, verb, adjective, or adverb, such as:

Nouns

Fine raiment
A joyful throng
A monthly periodical

Verbs

Quelled the disturbance
Placate the child
To endow the project

Adjectives

In a haphazard manner
Ludicrous situation
The condensed edition

Adverbs

Spoke dejectedly
It is seemingly impossible
Approved unanimously